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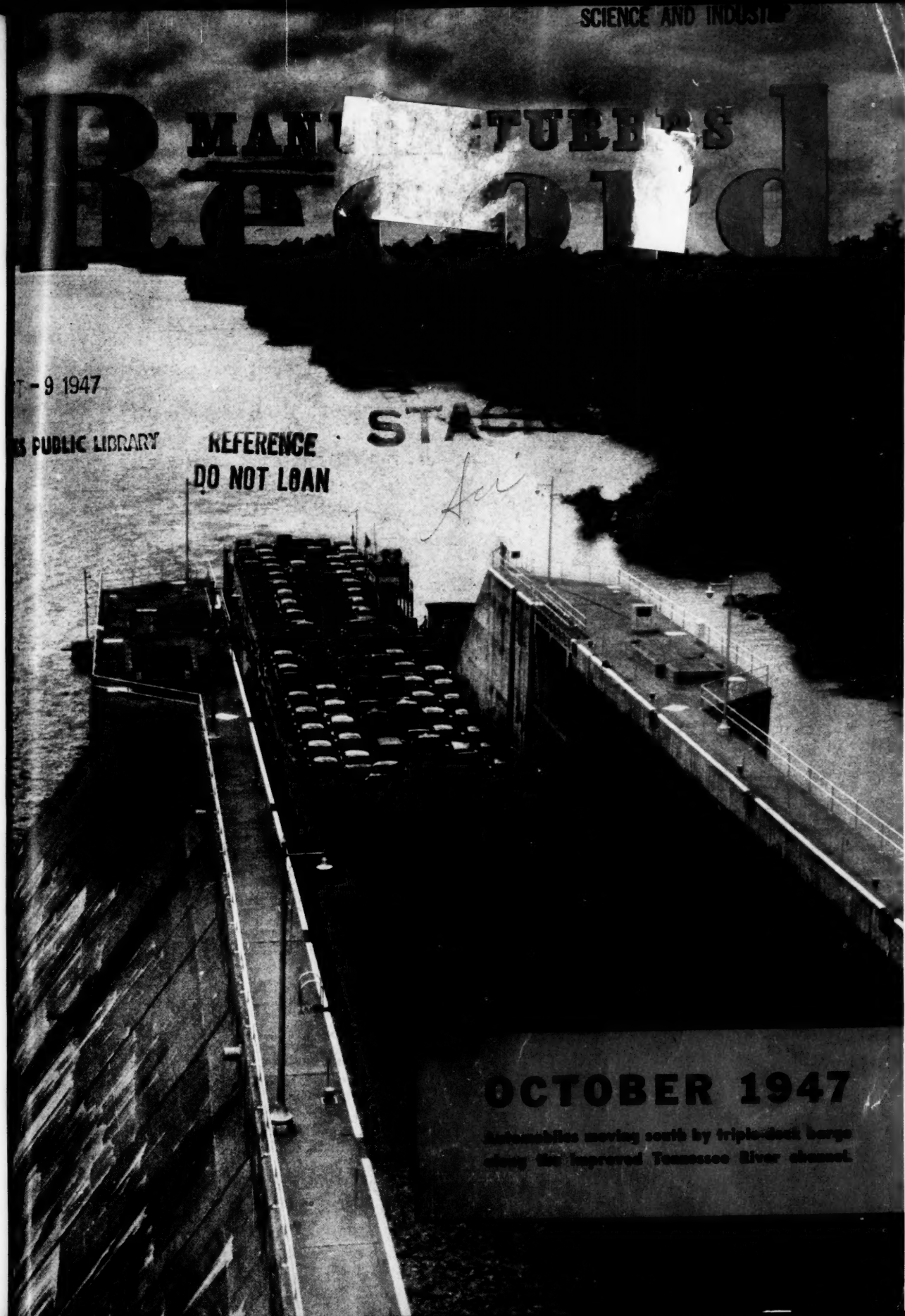
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OCTOBER 1947

Automobiles moving south by triple-deck barge
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Tennessee Phosphate Rock

PHOSPHATE DIVISION

International
MINERALS & CHEMICAL CORPORATION

General Offices: 20 North Wacker Drive, Chicago 6

MANUFACTURERS RECORD

ESTABLISHED 1882

Devoted to the Industrial Development of the
South and Southwest

Volume 116 OCTOBER, 1947 Number 10

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**Where
Industrious,
Intelligent People
Want to Work ...**

THE Empire District offers industry seeking profitable opportunity, the finest kind of workers — who give a full day's work for a full day's pay.

The population is better than 99% native born American — with a heritage of independence and industry. They are stable—rooted here and want permanent employment in their chosen land. Turnover is low—production per worker is high—profits are greater. Many have a high degree of mechanical skill — and are quickly and easily trained.

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**THE EMPIRE DISTRICT
ELECTRIC COMPANY**

**Remember — You're Wanted in the Empire
District — Industry's New Opportunity Land.**

Southern Business Outlook

Output of factories in the 16 Southern states declined slightly during the latest reported month; but manufacturing, as well as business in general, continues to hold at a very high level, 25 per cent above production for the same month last year.

A good portion of the factory decline can be attributed to vacation shut-downs, especially in the textile industry. A work stoppage of considerable proportion in at least one state also had its effect upon activity.

Electric output, always a dependable indicator, showed a fractional gain for the month, and held at a level 9 per cent above last year.

Wholesale and retail sales continue to reflect in slight declines the seasonal variation expected during the summer. Coal and steel production carry over into the latest month the small declines started in the preceding month, due to the coal mine work stoppage.

New corporations are still being formed in the South at an encouraging rate, and business failures are very low in number. Southwestern states, Texas, Arkansas and Oklahoma, together with Missouri, are displaying especial activity in this direction. Florida likewise continues to record a high tide of newly incorporated business, although somewhat below the phenomenal rate set and maintained by that state during 1945 and 1946.

MONTHLY INDUSTRIAL ACTIVITY (16 Southern States)

	<i>Latest Month</i>	<i>Preceding Month</i>	<i>Year Ago</i>
All Manufacturing	\$2,651,035,000	\$2,656,643,000	\$1,999,669,000
Durable Goods	\$ 958,056,000	\$ 966,052,000	\$ 695,886,000
Nondurables	\$1,692,979,000	\$1,690,591,000	\$1,303,783,000
Steel Output (tons)	1,058,486	1,103,899	1,053,194
Pig Iron Output (tons)	725,463	751,379	721,836
Cotton Consumed (bales)	589,400	637,246	643,539
Spindle Activity (thou. spindle-hours)	7,165,224	7,535,315	6,759,645
Pine Lumber Cut (board feet)	67,934,000	62,532,000	60,561,000
Electric Output (thou. kilowatt-hours)	7,056,199	6,953,782	6,436,764
Construction Awards	\$ 144,644,000	\$ 153,908,000	\$ 119,552,000

FARMS AND MINERALS

Farm Marketings	\$ 597,197,000	\$ 530,296,000*	\$ 435,397,000
Meat Production (head)	969,600	912,000	972,900
Coal Output (tons)	24,151,000	16,210,000*	24,862,000
Crude Oil Output (barrels)	103,268,750	100,894,150	95,468,450

FINANCE AND DISTRIBUTION

New Corporations	2,482	2,000	2,437
Business Failures	44	39	10
Net Gain—Business Enterprises	2,438	1,961	2,427
Bank Deposits	\$9,400,000,000	\$7,928,000,000	\$7,702,000,000
Bank Clearings	\$6,382,671,000	\$6,306,593,000	\$5,765,533,000
Retail Sales	\$2,199,000,000	\$2,480,000,000*	\$2,188,000,000
Carloadings	1,427,389	1,262,110*	1,401,926

*Revised. Steel and iron data from reports of American Iron & Steel Institute; Pine Lumber from Southern Pine Association; Crude Oil from American Petroleum Institute; New business and business failures, Dun & Bradstreet; Carloadings, Association of American Railroads; Other data from U. S. Federal agency statistics.

SOUTHERN MANUFACTURING EMPLOYMENT

(Number of persons employed)

	Durable Goods		Nondurables		All Manufacturing	
	<i>Latest Month</i>	<i>Preceding Month</i>	<i>Latest Month</i>	<i>Preceding Month</i>	<i>Latest Month</i>	<i>Year Ago</i>
Alabama	136,000	135,000	91,000	91,000	227,000	208,000
Arkansas	47,000	47,000	23,000	23,000	70,000	69,000
Florida	32,000	32,000	45,000	44,000	77,000	74,000
Georgia	69,000	69,000	177,000	178,000	246,000	256,000
Kentucky	62,000	62,000	66,000	66,000	128,000	121,000
Louisiana	58,000	57,000	83,000	81,000	141,000	132,000
Maryland	104,000*	121,000	114,000	103,000	218,000	238,000
Mississippi	56,000	56,000	33,000	34,000	89,000	83,000
Missouri	150,000	149,000	202,000	203,000	353,000	312,000
North Carolina	90,000	90,000	275,000	276,000	364,000	360,000
Oklahoma	19,000	19,000	35,000	35,000	54,000	52,000
South Carolina	35,000	35,000	153,000	154,000	188,000	180,000
Tennessee	87,000	86,000	161,000	159,000	248,000	240,000
Texas	139,000	138,000	196,000	201,000	335,000	309,000
Virginia	68,000	68,000	143,000	144,000	211,000	200,000
West Virginia	86,000	85,000	48,000	49,000	134,000	129,000
South	1,238,000	1,249,000	1,845,000	1,841,000	3,083,000	2,963,000

*Affected by work stoppage involving upwards of 15,000 workers.

Of the above tabulation, data for Florida are figures rounded to nearest thousand from the monthly statistical report of Florida Industrial Commission; Maryland, State Department of Labor and Industry; Louisiana, Louisiana State University, College of Commerce; North Carolina, State Department of Labor; Oklahoma, State Employment Security Commission; Tennessee, State Department of Employment Security; Texas, The University of Texas, Bureau of Business Research. In the absence of cooperative aid from other states, the remaining figures are result of monthly surveys by MANUFACTURERS RECORD.

Birmingham District

By R. W. KINCEY

Birmingham Steel production in this district stepped up its already furious pace a notch this month when Republic Steel Corporation temporarily, at least, swung its eighth open hearth furnace into action at Gadsden.

The move gave the district a total of 24 active furnaces including the 16 for Tennessee Coal, Iron & Railroad Company at Ensley and Fairfield.

But no appreciable dent apparently is being made in demand which continues, even in the face of unprecedented production, always comfortably ahead of output.

The shortage in all specifications is alarming. Matters are as bad or worse in pig iron, even though some measure of relief was anticipated as a result of scheduled return to production when repairs are completed, of the government owned stack at Gadsden.

War Assets Administration has agreed to repair the furnace, down two months after having broken down, and Republic will operate the 800 ton facility. It is expected to produce enough iron to make 30,000 tons of soil pipe a month, shortage of which, Washington says, is holding up the building of new homes.

Latest development in the pig iron situation is disclosure here this week that first shipment of iron from Daingerfield, Tex., is expected late in October. Local representatives of the Lone Star Steel Company decline to disclose the tonnage on order locally but admit it will run into "substantial figures."

The move to buy from Texas, or wherever iron is available, is simply part of a program to piece out needs in this district. Some observers say the estimate of 50,000 tons a month additional should be revised upward if it is to be representative of the needs of the district. Production, of course, is suffering accordingly, especially in foundries and pipe plants.

Considerable disappointment was expressed in some quarters over failure of the trade ship program which was laid at the governor's door because of his failure to immediately sign the bill and clear the way for raising \$500,000 from industrial and business interests over the state.

As a result, sponsors of the plan announce they have temporarily, at least, abandoned it. Considerable opposition, however, is known to have come from some local industrial sources and was based, it is reported, on misgiving lest the plan popularize Gov. Folsom to the extent of boosting him to the U. S. Senate.

Statewide interest attaches to the annual meeting Oct. 23 in Birmingham of the Associated Industries of Alabama which

will bring not less than 500 business and industrial leaders here. The program has scheduled, as a prelude to the annual meeting, an institute on current factors affecting industrial relations.

The two major topics to be considered are "Will the Taft-Hartley Bill Work?" and "How Can We Approach Employment Stabilization?"

The annual dinner meeting Oct. 23 will have as its theme "Security Through Competition." Officers of the association will be elected and R. C. Stobert, president, will report on the year's work.

Industry, in particular, along with labor, was interested in action by the Alabama House in killing a bill to prohibit the union shop and the closed shop in this state after it had previously refused to vote on a companion measure to outlaw mass picketing. Speculation is rife as to other probable moves in that direction. Most observers believe any such legislation would further disrupt labor-management relations, now comparatively harmonious in the industrial district.

Coal production holds to a steady and generally satisfactory pace with output for the first eight months of the year slightly above that of the corresponding period last year. The state had 22 miners killed this year to date as compared to 26 for the eight months last year.

Red ore mining for the same period showed a rather substantial gain with 3,626,116 tons mined in the 1946 period and 1,452,350 mined this year to date.

The newsprint project at Childersburg continues to move nearer to actuality. Coosa River Newsprint Company has just announced the signing of an engineering contract with J. E. Sirrine Company, Greenville, S. C., for construction of the \$30,000,000 project.

Kimberly Corporation, which will operate the plant, acted as representative for the company.

Technical groups of the district are preparing for the start of their usual Fall programs with much interest being manifested, Birmingham foundrymen, who held their annual outing at Roebuck Club earlier in the month with nearly 600 in attendance, starts its new season Oct. 17 when Thomas W. Curry, Lynchburg, Va., metallurgist, will speak to the group on "Chemically Treated Molding Sand."

American Society of Mechanical Engineers started its new season Sept. 19 with a buffet supper and an address by Tom Allardice, Combustion Engineering Company, on engineering, fabrication, erection and operation of utility and industrial steam power plants.

The district heard with regret, announcement of the death of D. D. (Don) Whitecomb, farm products marketing agent for the Tennessee Coal, Iron & Railroad Company, and widely

Southern Business Outlook

known throughout the entire Southeast.

An employee of the T.C.I. for the past 10 years, Mr. Whitcomb died at his Summer home after a brief illness. He was buried at Orlando, Fla.

Scattered personnel changes are evident, among them appointment last week of Joseph Ward, formerly executive secretary of Paint Research Associates, Chicago, as general manager of Alabama Paint Company here.

The company plans an extensive expansion program with addition of several products to its line.

Backlogs continue to increase in some of the major industries. Pullman-Standard Car Manufacturing Company announced its orders on hand now approximate 10,000 cars with placing of a contract with the Bessemer plant for 800 cars by the Fisco Lines.

Fred O. Reemer, vice president, said the company will start production of its new P-S-1 composite type cars about the first of the year, with the Seaboard Air Line being among the first to receive the new product.

The Southwest

By DAN SUMMERS

Development of an extensive glass manufacturing industry is eyed by Corpus Christi in the location during September of a glass factory on the north shore of Corpus Christi Bay near Portland.

The West Virginia Glass Speciality Company of Weston, W. Va., will construct the plant on a ten-acre site. Workers will start the foundation late this fall.

Louie Wohinc, majority owner of the West Virginia Glass Speciality Company, began investigating Corpus Christi as a possible plant site about eight years ago. When in Texas a few months ago he inspected several locations in the Gulf Coast area and also in the lower Rio Grande Valley. He finally decided on Corpus Christi because of the city's water and overland transportation facilities, plentiful supply of natural gas, the availability of soda ash from local industries and the buying power of the South Texas market.

Wohinc said the plant will employ an estimated 350 persons when opened. Stemware, tumblers, vases, water glasses, beverage glasses, cordial bottles, plates and other glass items will be manufactured. Wohinc is owner also of the Weston, W. Va., Glass Company, Ludwick Glass Company of Glenville, W. Va., and Huntington Glass Company, Kenova, W. Va.

Plymouth Oil Company, extensive operators in nearby gas and oil fields, will supply the plant with its natural gas. Sand, for immediate requirements at least, will be shipped from Illinois, presumably by barge over the Intercoastal Canal.

Industrial leaders in the Corpus Christi area have long emphasized the city's advantages and attractions to the glass industry. The area has extensive marine and coastal bar sand deposits. While not suitable for the manufacture of flint glass, the bar and marine deposits are adaptable to other kinds of glass manufacturing, engineers have commented. Source of this supply is fifteen miles from the city.

About two hours drive from the booming Corpus Christi bay a striking development in favor of all small and big industries and businesses in the Southwest was making news in September.

On the widespread acreage of Essar Ranch just four miles west of San Antonio, industrialists and other Southwest businessmen gathered for dedication ceremonies of the Southwest Research Institute, a non-profit scientific organization which will serve Southwestern industry in solving its technological problems. The institute will act as an aid to manufacturers in the manner Midwest, Armour and Mellon Institutes assist industries in the East and Mid-West.

Of intense interest to Houston manufacturers was the announcement by Tom Slick, San Antonio oil man and rancher who endowed the Institute, that a \$1,000,000 petroleum tech-

nology laboratory will be built within the next year at Houston by the institute.

A large number of oil men, bankers, scientists, industrialists and engineers heard at the dedication dinner that the research facilities of the institute will be of tremendous value to small businesses and industries which are not in the position to maintain research laboratories of their own.

Operating on a basis similar to the practices at Mellon, Armour and Mid-West Institutes, the Southwest project will undertake research projects on a non-profit fee basis in which the sponsoring manufacturer or association will underwrite costs for services rendered and retain patent rights for all discoveries which might accrue from the exploration.

The technological facilities are designed to assist in improving manufacturing processes, solving industrial engineering problems, developing new materials or products, improving agricultural production, analyzing biological or chemical problems and reducing manufacturing costs. The institute is also interested in promulgating improved livestock production, solving industrial-chemical problems, exploring chemurgical potentialities and discovering new uses for by-products or wastes.

James V. McGoodwin, industrial director for the San Antonio Chamber of Commerce, said at the opening of the institute that less than 2 per cent of the nation's industrial research is being accomplished in the Southwest. The institute, he added, definitely will change this figure.

The institute's laboratory will be staffed with about twenty scientists. A placement office in Houston's Oil and Gas Building will provide consultation services in that area.

West Texas businessmen have displayed no less interest in the industrial development of their territory and have reinforced their confidence in an eventual industrialization of the area with the appointment of industrial development commissions. These groups have been activated and are now employing experts to survey and analyze the potentialities for industrial development of West Texas.

Commissions have been appointed to work with each railroad serving the area. Each of the committees is taking a different route toward the same objective. For example, the Texas & Pacific Committee has employed Dr. Sidney L. Miller of the University of Pittsburgh to make an economic survey of the West Texas territory for the purpose of casting up a prospectus for industrialists and business men of West Texas pointing the way to industries along the Texas & Pacific route.

A University of Texas professor is also helping Dr. Miller and this committee. The Santa Fe is employing an expert in the woolen and cotton industries to prepare a prospectus on those particular industries for possible development along the Santa Fe Railroad route through West Texas. The Burlington is following a course toward development of grain sorghum and leather goods. The Rock Island is working on grains and flour industries.

West Texas has found itself, like many other sections of the country, in a peak building boom period. Yet, while the population and business in many of the small towns of West Texas swells daily there is reason to expect an industrialization in the maturing of this undeveloped country. The work and findings of the committees will be of great value.

Industrial activity about Houston continued its rapid pace in early fall with Gulf Chemical Company spading its foundation for a \$1,000,000 phosphate plant on the north side of the Houston ship channel. George A. Butler, president of the firm, said production could be expected by the first of next year. Phosphate rock will be shipped from Florida and used as a basis for the production of a series of products marketed as supplements to livestock feeds and for extensive uses in agriculture and industry. Truman B. Wayne & Associates, consulting chemical engineers, will supervise the construction.

In the planning stage is a \$1,500,000 cold storage plant and warehouse which will be owned and operated by SM Investment Company, Houston. Completed, the plant will house 60,000 square feet of freezing space, 40,000 feet of cooling space and

150,000 square feet of warehouse space.

Humble Oil & Refining Company has let a \$6,360,000 contract to Stearns-Roger Manufacturing Company, Denver, for improvement work at the huge Katy gas plant in the northwest section of Harris County. The Plant produces ethane propane, and butane. American Republic Corporation and Houston Oil Company have jointly let a contract amounting to \$3,000,000 to Gasoline Plant Construction Company, Houston, for construction of a gas plant in Silsbee Field, Hardin County.

H. M. Cohen, president of a lumber company in his name at Houston, has proposed the construction of a \$5,000,000 apartment project of 500 units in Houston. He told the city council there that a shopping center will be included in the project.

Piedmont Area

By J. A. DALY

Representative spokesmen for major divisions of business and industry in the Southeast described the region's economic situation late in September as highly uncertain.

The outlook has been clouded by booming commodity prices, threats of new labor unrest, and intensified sales resistance.

A survey for the MANUFACTURERS RECORD disclosed, however, that transportation, construction, textiles, automotive, machinery and power industries continued hard pressed to meet insistent demand.

Caught in a "squeeze" between buyer demand for reduced profit margins and mounting materials costs, the leaders of big Southern industries pointed to the price indexes. These data showed ten recent consecutive weeks of rise that put materials up at least 35% over a year ago while manufactured goods prices were up only about 20%, despite interim substantial wage rate boosts.

Industrial news of the Southeast continued to be featured by announcements of multi-million-dollar expansion projects of power companies, which admittedly now are finding themselves pressed to safely meet tremendously increased, and still rising, demands for industrial and domestic power.

Duke Power Co. received Federal Power Commission approval for a \$60,000,000 Duke refinancing program which will provide this Carolina system \$30,000,000 of new money. Company executives announced that \$15,000,000 will be expended for a steam-electric plant, probably 120,000 kilowatts, on the Dan River, near Leakesville, N. C., starting early next year. Also, \$12,000,000 is being spent for a 130,000-kilowatt expansion of the Cliffside steam-electric plant near Shelby, N. C.

Duke's program also involves several millions of expenditures for additions to transmission and distribution facilities in both Carolinas.

Carolina Power & Light Co. announced a \$25,000,000, four-year construction program in the Asheville region. This will include a 120,000 horsepower steam-electric plant on a site to be selected; a high voltage transmission line to connect with the Appalachian Power Co. at the Virginia-North Carolina line and an additional Canton-Asheville line that will increase Asheville's power supply one third. The larger projects are scheduled for starting in mid-1948.

Great expansion programs also have been announced by the Georgia Power Co., Alabama Power Co., and other major companies operating across the Cotton Belt, including a \$40,000,000 program in Arkansas. Furthermore, perhaps a half-dozen much smaller programs are under way among power companies operating over small areas of the Southeast, like the \$6,000,000 program of the South Carolina Power Co. in the Charleston, S. C., area.

The Edison Electric Institute recently disclosed that since V-J Day power company customers increased nearly 6 per cent for the United States, with the South showing the greatest gains. The West South Central States gained 9.2 per cent; the East South Central States, 8 per cent, and the South Atlantic area, 7.6 per cent.

Executives of large Southeastern power companies said that the South is contributing an exceptionally large percentage of the industry's estimated \$5,000,000,000 five year expansion.

In this connection, the September *Bulletin* of Northern Trust Co. of Chicago said: "It is believed that much of the greater

than average growth in electric power sales in the South and Far West, as a result of industrial development in these regions during the war, will be retained." The Trust Company said also that national power production since 1939 has increased 79%; generating capacity, only 29%; and the margin of reserve has declined from 35% to the dangerous low of 12%.

A further indication of the steady expansion of demand for electric power in the Southeast is given in official figures showing that North Carolina applications for Rural Electrification Administration loans on file at the start of the current fiscal year totaled \$3,310,000. Allotments by REA to North Carolina for the fiscal year exceeded \$7,000,000, an amount estimated to be sufficient to provide electrical service for about 15,000 farm families.

This expansion of power demand, among other far-reaching economic influences, is heartening distributors of electrical appliances lines produced by the great American manufacturers, who are intensively cultivating the Southeastern market, where per capita income has increased well ahead of the national average during recent years.

The Southern Bell Telephone & Telegraph Co., Carolinas headquarters at Charlotte announced that this company installed 600,000 telephones since August 1, 1945 "in the rapidly developing South" increasing by one-third the number of telephones served by this company. The statement disclosed that 350,000 unfilled applications for telephones are on file.

An increase of common stock to provide \$2,111,500 of new funds to finance the largest construction program in the history of the Carolina Telephone & Telegraph Co. of Tarboro, N. C., was registered with the Securities & Exchange Commission. The work, now in progress, is financed temporarily by Southern Bell, the parent company.

The Rock Hill (S. C.) Telephone Co. started a \$450,000 expansion and modernization program, which in part reflects needs growing out of the \$10,000,000 synthetic textile plant being built there by Celanese Corp. of America. This plant will employ more than 2,000 workers when completed more than a year hence.

In the midst of a normally busy early Fall, Carolina retailers reported late in September that "business comes hard." Consumer resistance is persistent with potential buyers showing increased conservatism. Prices were strongly rising, especially for foodstuffs, textile finished products and apparel. Cashings of veterans' leave bonds gave a slight support to Carolina retailing, which reportedly is holding about even with this period of last year, dollar volume.

Consumers are diverting purchases to lower-cost items, especially foods. The increasing costs of every-day essentials are draining buying power to an extent that some merchants, particularly furniture and household appliance dealers, are worried over contracting markets and expansion of consumer installment credit.

Hardware sales are holding at 15 per cent above last year; inventories are up 50 per cent; accounts receivable, 35 per cent; collections are satisfactory.

With farmers' cash reserves at record levels and income holding a high rate, the farm machinery outlook is one of the bright spots in the Carolinas' mottled economic picture. Demand still far exceeds farm equipment deliveries by dealers.

Lately, Carolina livestock prices hit all-time highs, with marketings well above normal.

Latest Federal reports showed that the Southeast this year is producing record yields of corn, peanuts and soybeans; fair crops of hay; better than average crops of apples and pecans; a below normal Irish potato crop and a larger sweet potato crop, with moderate gains in egg and milk production. Since prices of most of these products are near record levels, support is given optimistic estimates that the Southeast's farm income will fully equal last year's record.

With an indicated cotton production of 1,135,000 bales in the two Carolinas out of the Belt's estimated 11,800,000 bales, unofficial trade sources estimated late in September that this yield will give the Carolinas a minimum of \$160,000,000 for lint and \$3,000,000 for cottonseed.

As the ginning season opens, Carolina crushers are offering \$75 per ton, carlots, FOB, for cottonseed, compared with a peak of around \$90 last Winter.

Cotton futures registered sporadic declines in September.

Southern Business Outlook

Spot dealers obtained wide premiums for immediate deliveries of scarce, higher grade, longer staple cotton but lower grades were in slow demand. Mills showed a hesitancy to buy spot cotton for fourth and first quarter deliveries, but many mills sold their textile production into the second 1948 quarter.

A general advance in cotton textiles was led by print cloths, which sold at \$1.04 per pound.

The New York Stock Exchange Service reported that 31 listed textile companies paid \$28,780,000 in dividends in the first half of this year, an increase of 102.5% over the 1946 period. This Service also reported that net income of 13 reporting companies for the first half of this year was up 58.5% at \$14,288,000, compared with the 1946 first half.

By mid-September persistent strength in the Southern textile mill stock market lifted the average over-the-counter bid of 60 common issues to the new 1947 high of \$104.91, compared with the year's low of \$91.73 in May. Another compilation showed that 66 issues in this category are on an average dividend basis of \$4.89, compared with \$3.97 at the start of this year.

Reflecting generally unsatisfactory prices, largely because of the British embargo on tobacco and its products, the North Carolina Farm Bureau Federation formally resolved to reduce members' acreages in tobacco next year 20% to 30%. Prices reported by Federal authorities so far this season have averaged at least \$9 per hundredweight below the record 1946 price level around \$55.

Consequently, a tremendous tonnage of leaf is being delivered to the Tobacco Stabilization Corp., as buyers' offers were below Government support. This, among other actions, caused the Department of Agriculture to take over from the War Department warehouse space in the Charlotte Army Quartermaster Depot sufficient to store 20,000 hogsheads of tobacco.

Statistical agencies reported a quickening of construction, which developed in June, was continuing in September, with October prospects somewhat better than seasonal. The Carolina total so far this year is about 15 per cent below the same 1946 period.

The Charlotte offices of the Carolina Lumber & Building Supply Association reported that Southeastern retail stocks of lumber declined about 4 per cent in recent months, but yet are 115 per cent above a year ago, while the sales level is about 10 per cent above that of last May.

Admittedly a "spurt," building permits issued in one early September week at Charlotte totaled \$743,000, including 56 residential units to cost \$418,000 and a \$150,000 Southern headquarters for the Du Pont dyestuffs and research divisions.

Indications of a construction boom in Atlanta were given by an Associated General Contractors report that \$15,000,000 of projects are being built there by three Charlotte contractors.

Acute water supply problems developed to harass several Carolina communities which experienced large growth in recent years. In mid-September, a water crisis at Winston-Salem threatened suspension of industrial operations two or three days a week. This city began developing plans for a \$4,000,000 water system expansion.

Burlington (N. C.) announced a \$700,000 water supply expansion. Norton (Va.) will receive bids until December 11 for construction of a 720,000 gallon per day filter plant. Gastonia (N. C.) is ready to award contracts for a \$1,350,000 program.

Another straw in the economic wind is the North Carolina Revenue Department report that booming prices boosted tax collections to \$7,229,456 in August, a record, 17.4% above the 1946 month's total. Gasoline taxes totaled \$3,800,000, against \$3,077,819; retail sales tax, \$2,861,064, against \$2,448,293.

Unprecedented operation of motor vehicles, as shown by the gasoline taxes, resulted in a great demand for automotive repair and service, with the shops operating at capacity.

A sidelight on the expansion in industry and buying power of the Southeast was given by the North Carolina State Research Bureau, which found that wages paid in 1946 to North Carolinians exceeded \$1,000,000,000 for the first time. The average weekly wage increased to \$34.64 to give a state total of \$1,053,000,000, up 23.8% over 1945.

Weekly bank clearings totals at Charlotte continued a substantially better showing than the national average. Official data follows:

Week Ended	1947	1946
Sept. 17	\$81,990,376	\$75,457,993
Sept. 10	64,268,986	61,861,014
Sept. 3	50,449,574	51,127,731
Aug. 20	71,961,669	70,907,516
Aug. 6	57,782,572	54,873,402
July 17	69,558,670	62,073,507

Receipts at the Charlotte Post Office attained a record total of \$165,571 in August, up \$30,926 over the same 1946 month. This gave Charlotte a record eight-month total of \$1,306,931, a gain of \$181,849 over the 1946 period.

The Southeast

By JOHN MEBANE

Atlanta—The Southeast today is battering at a continuing tide of rising prices, bolstered, apparently, by government exports of food and other commodities, a greater consumer demand than ever before in history and the maintenance of relatively high levels of income.

Masses of perplexed but indignant consumers are hammering away with verbal barrages at the mounting prices, while more-thinking ones are attempting to understand the underlying causes of a condition that strikes sharply at their pocketbooks.

Nevertheless, soaring prices are hitting at all segments of business and industry in the region and are resulting, at virtually all levels in softgoods lines and at all levels in some branches of durable goods, in definitely decreasing unit sales volumes, despite the fact that dollar volume is dropping in far less proportion.

The department store sales offer a typical example of what is happening in many lines. For the four-week period ended Sept. 6, 1947, department store sales in Atlanta were down only 3 per cent and those in the entire Sixth Federal Reserve District only 1 per cent below those of the corresponding four-week period of 1946, according to the Federal Reserve Bank of Atlanta. Nevertheless, unit sales are reported considerably below those levels with higher prices accounting almost entirely for the fact that dollar volume has held up so well.

This is in marked contrast to last year when department store sales for the four-week period ended Sept. 7 were up 47 per cent in Atlanta and 46 per cent in the district, compared with the similar 1945 period.

The Federal Reserve Bank points out in its Monthly Review that July, 1947, was the first July in 10 years that department store sales in the district failed to register a gain over those for the preceding year. It adds that comparisons between conditions now and those prevailing in the 1935-39 period show that the Sixth District department stores lead those of the nation's other Federal Reserve districts in the rate of sales increase, but it appends what appears to be a warning:

During the first six months of the current year, final figures show that department stores in this district sold goods 6 per cent greater in dollar value than they did in the corresponding period of 1946—but throughout the nation as a whole the corresponding increase was 9 per cent.

That this district's consumers were able to exceed the heavy 1946 spending in the first half of this year, the bank asserts, "indicates they have retained much of the gain in relative income position they obtained during the war years. The rapid rate of increase in the district during the war compared with increases in other districts is, of course, one reason why each dollar rise in sales at the present time contributes less to a percentage gain than a similar rise did at that time. Even so, the recent lower rates of increase in the district indicate that the wartime influences which raised Sixth District income are diminishing.

(Continued on page 62)

NEW AND EXPANDING PLANTS

COMPILED FROM REPORTS PUBLISHED IN THE DAILY CONSTRUCTION BULLETIN

ALABAMA

ANNISTON—Southern Bell Telephone & Telegraph Co., addition to main office.
ARAB—Lanier Engineering Co., 254.63 miles of copper and aluminum REA Lines Project Alabama 47-A Arab.
ATMORE—City, natural gas system.
BAY MINETTE—Georgia Hardwood Lumber Co., \$150,000 expansion program.
BIRMINGHAM—Seaboard Air Line Railroad Co., alterations and remodeling present freighthouse and office building.
BIRMINGHAM—Alabama Power Co., \$46,000,000 three-year expansion program, \$1,250,000 steam-electric generating plant; \$1,250,000 fourth hydroelectric unit; \$6,000,000 transmission line and substation additions; \$12,000,000 for rural lines; \$3,000,000 for miscellaneous additions.
BIRMINGHAM—Boggs Brokerage Co., refrigeration storage and office building.
BIRMINGHAM—W. J. Bullock Co., bathhouse and chemical laboratory, \$80,000.
BIRMINGHAM—G. S. Dowdy Candy Co., candy factory.
BIRMINGHAM—Southern Bell Telephone & Telegraph Co., additions to dial office building No. 9.
BIRMINGHAM—Southern Bell Telephone & Telegraph Co., additions to dial office No. 32.
GADSDEN—Republic Steel Corp., tube mill.
GREENVILLE—Pioneer Electric Cooperative, \$565,000, facilities.
GUNTERVILLE—Guntersville Motor Co., garage and show room.
HUNTSVILLE—Hill Chevrolet Co., sales and service building, \$100,000.
MOBILE—Southern Bell Telephone & Telegraph Co., addition to main office, \$325,000.
MOBILE—Southern Bell Telephone & Telegraph Co., additions to dial office building No. 6 and 7.
MONTGOMERY—Dairy Producer's Cooperative, dairy building.
MONTGOMERY—Coca Cola Bottling Co., \$48,200, addition to existing plant.
SHEFFIELD—Electrometallurgical Co., building to house 10,000 kilowatt electric furnace, \$250,000.
STEVENSON—North Alabama Electric Corp., 233 miles of line.

ARKANSAS

Arkansas Louisiana Gas Co., \$14,000,000 construction program.
ARKANSAS—Coca Cola Co., warehouses.
AUGUSTA—Buffalo Frozen Foods Co., strawberry processing plant.
CONWAY—Carl Bailey Co., building for farm implement sales, service and warehousing.
ENDORA—Endora Ice Co., \$15,000 addition to plant.
JONESBORO—Craighead Electric Cooperative Corp., \$792,000 previously approved construction and 143 miles of line.
MENA—Rich Mountain Electric Cooperative, 167 miles of line, \$400,000.
NEWPORT—A. Ziff & Son, plant for manufacture of beverage cases.
OZARK—J. E. Thompson, telephone office building.
SPRINGDALE—Welch Grape Julee Co., \$142,000, facilities and equipment; \$500,000 plant expansion.

FLORIDA

CORAL GABLES—Marvel Properties, Inc., manufacturing plant addition, \$75,000.
DADE COUNTY—Chengro Corp., hydroponic beds, \$70,000.
DADE COUNTY—Kerr Sausage, manufacturing plant addition, \$104,000.
DEFTIAK SPRINGS—Rivard Chevrolet Co., sales and service building.
FORT LAUDERDALE—Tropical Radio Telegraph Co., tropical radio receiving station.
HALEAH—National Cylinder Gas Co., industrial building, \$30,000.
LAKE LAND—National Beverages, Inc., bottling plant.
MIAMI—Earl Bindhammer, shop building.
MIAMI—Mangham-Butler, Inc., service station, \$22,000.
MIAMI—Harry Smoker, garage, \$10,000.
MIAMI—Singer Sewing Machine Co., additions and alterations to building.
MIAMI—Nolan Brown Motors, Inc., \$242,897, additions and alterations to garage and showrooms.
MIAMI—Munroe-Zeder, Inc., garage and showroom.
MIAMI BEACH—Kahn Salomon, Inc., garage, \$15,000.

MOORE HAVEN—Glades Electric Cooperative, Inc., REA System, \$63,943.
ORLANDO—Allied Welding Co., warehouse.
SARASOTA—Howard Finney, garage and service station, \$100,000.
TALLAHASSEE—Gibbs Equipment Division of Jacksonville, construction of sales and service building.
WAUCHULA—Peace Valley Membership Corp., \$57,000, REA headquarters, warehouse and office building.

GEORGIA

ATLANTA—Brown Boy Bottling Plant, \$88,600, bottling plant.
ATLANTA—Georgia Power Co., garage.
ATLANTA—Linde Air Products, alterations and additions to warehouse.
ATLANTA—Firestone Tire & Rubber Co., \$350,000, warehouse and office building.
ATLANTA—Atlantic Greyhound Lines, garage building.
ATLANTA—White Provision Co., alterations to boiler plant and additions to office building.
AUGUSTA—Edward E. Heath, auto sales and repair garage.
CAMILLA—Mitchell Electric Membership Corp., \$185,000, system improvements and 308 miles of line.
DALTON—North Georgia Electric Membership Corp., \$40,264.93 miles of aluminum rural electrification lines.

New and Expanding Plants

Reported:

September—227

1947

to date—2374

DONALDSONVILLE—Three-Notch Electric Membership Corp., \$500,000, system improvements, headquarters facilities and 305 miles of line.
DOUGLASVILLE—DeKalb County Electric Membership Corp., \$5.51 pole miles of primary, secondary and tertiary lines.
GRIFFIN—Ed Smith Chevrolet Co., garage and show room, \$50,000.
MACON—Macon Gas Co., service building.
MARIETTA—Southeastern Greyhound Lines, bus terminal.

KENTUCKY

LOUISVILLE—Harrison & Girdler, automobile sales agency and garage, \$100,000.
LOUISVILLE—Louisville Paper Co., warehouse.
OWENTON—Owen County Rural Electric Cooperative Corp., \$740,000, facilities.

LOUISIANA

BATON ROUGE—Rock Ice Co., expansion program, \$207,400.
BATON ROUGE—Ethyl Corp., \$186,750, medical and personnel building.
BOGALUSA—Marshall Railroad, Jr., D. T. Cushing, \$80,000 tung crushing plant, a paint factory, and a fertilizer plant.
BOGALUSA—The Merchants Co., \$100,000 plant.
CROWLEY—Greyhound Lines, bus station.

HOUMA—South Louisiana Electric Cooperative Association, \$153,000, 67 miles of line.
LAFALETTE—Lafayette Distributors Co., Inc., warehouse, \$12,000.
MONROE—M. M. Selig, furniture manufacturing plant, \$98,000 and \$121,762.
NEW ORLEANS—Lone Star Cement Corp., precipitator building, \$10,573.
NEW ORLEANS—Schott & Co., Inc., addition to building.
NEW ORLEANS—Lyman C. Reed, extension to manufacturing plant.
NEW ORLEANS—Plastics Productions, Inc., plant.
NEW ORLEANS—Public Belt Railroad Commission, union station.
NEW ORLEANS—Charles Doerr, industrial building.
NEW ORLEANS—Rosa Eleonora Murray, \$27,940, warehouse.
SHREVEPORT—Shreveport Syrup Co., warehouse, \$14,000.
SHREVEPORT—Evans Sporting Goods Co., warehouse, \$34,000.

MARYLAND

ANNE ARUNDEL COUNTY—American Oil Co., engine testing laboratory.
BALTIMORE—Lord Baltimore Filling Stations, Inc., 3 filling stations.
BALTIMORE—Chamberland Coal Co., storage garage and display building.
BALTIMORE—Industrial Paint & Varnish Co., building, \$15,000.
BALTIMORE—Tillye Wise David, quonset hut, \$18,000.
BALTIMORE—Chesapeake & Potomac Telephone Company, \$2,212,000, telephone facilities.
BALTIMORE—Chesapeake and Potomac Telephone Co., submarine cable.
BALTIMORE—Globe Brewing Co., brew house.
BALTIMORE—Rice's Bakery, distribution station.
BALTIMORE—Maryland Paper Box Co., manufacturing building, \$12,000.
BALTIMORE—Pennsylvania Railroad, \$500,000, interior improvements and installation of two escalators, \$200,000.
BALTIMORE—James J. DeJoy, Inc., storage building, \$18,000.
BALTIMORE—Belvedere Broadcasting Co., transmission building, Station WMCP.
BALTIMORE—National Brewing Co., engine room, \$20,000.
BALTIMORE—Charles A. Spann, ice cream plant and retail store.
BALTIMORE—Cumber Brewing Co., addition to storage shed, \$30,000.
BALTIMORE—Lecke Insulator Corp., plaster storage building.
BALTIMORE—Well & Scott Brothers, Inc., garage.
BALTIMORE—Baltimore & Ohio Railroad Co., locker and toilet building, \$10,000.
BALTIMORE—Talbot Motor Co., addition.
CURTIS BAY, STA. BALTIMORE—E. I. du Pont de Nemours & Co., Wilmington, Del., two manufacturing buildings, \$13,000.
BALTIMORE COUNTY—Roy A. Smith and Thomas W. Knebler, service station, \$20,000.
BALTIMORE COUNTY—Carl F. Weber, warehouse, \$10,000.
BALTIMORE COUNTY—C. W. White, building, \$11,000.
LANSOWNE—Westinghouse Electric Corp., manufacturing building, \$25,000.
SPARROWS POINT—Bethlehem Steel Co., pump house, mechanical maintenance shed, control laboratory, gas cleaning building, turbo blower building, cooling tower, service building, clockhouse.

MISSISSIPPI

GULFPORT—Mississippi Abstract Title and Guaranty Co., building.
JACKSON—City, garage.
JACKSON—T. C. Railroad, tunnel.
LEAKESVILLE—Board of Supervisors of Greene County, \$103,233, garment factory.
LEAKESVILLE—Basila Manufacturing Co., garment factory, \$30,000.
PHILADELPHIA—Wells-Lamont Corp., Chicago, Ill., factory addition.
VICKSBURG—Koelsters Bakers, bakery.
UTICA—Corey and Co., locker cold storage plant, \$50,000.

MISSOURI

KANSAS CITY—City, \$154,000 volt electric power line.
KANSAS CITY—J. & L. Steel Barrel Co., extension of manufacturing building.
KANSAS CITY—Sunshine Biscuits, Inc.,

bakery, \$1,750,000.

KANSAS CITY — Methodist Publishing House, \$425,000 remodeling project.

MARSHFIELD — Webster Electric Cooperative, \$390,000, system improvements, 142 miles of line.

POPLAR BLUFF — Ozark Boarder Electric Cooperative, \$235,000, system improvements.

SPRINGFIELD — Missouri Farmers' Association, fertilizer plant, \$300,000.

SPRINGFIELD — Deere & Co., sales and warehouse, \$10,000.

ST. LOUIS — Gay Investment Co., garage and shop, \$12,000.

ST. LOUIS — Roberts Chevrolet Co., alterations, auto agency and service, \$40,000.

ST. LOUIS — Swift & Co., factory addition, \$150,000.

ST. LOUIS — Pittsburgh Plate Glass Co., office and warehouse, \$300,000.

ST. LOUIS — Evans & Howard, alterations to factory, \$15,000.

ST. LOUIS — St. Louis-San Francisco Railway, centralized traffic control system, \$700,000.

ST. LOUIS — St. Louis Carpet Co., renovations to building, \$40,000.

ST. LOUIS — Anheuser-Busch, Inc., elevator shaft in 8-story bldg, \$40,000.

ST. LOUIS — Burroughs Glass Co., addition, \$10,000.

ST. LOUIS — Oldani & Venegoni, addition, \$12,000.

ST. LOUIS — Mallinckrodt Chemical Works, boiler plant addition, \$70,000.

NORTH CAROLINA

ABERDEEN — Colonial Mills, Inc., spun rayon plant.

BEXTON — Cape Hatteras Electric Membership Corp., 44.61 miles of REA line.

CHARLOTTE — Harris Motor Lines, garage and repair shop.

CHARLOTTE — Providence Memorial Association, mausoleum, chapel, and administration building, Sharon Memorial Park, \$700,000.

CHARLOTTE — Perry-Mincey Co., warehouse.

CHARLOTTE — Allison Erwin Co., \$32,500, alterations to building.

CONWAY — Horry Electric Cooperative, \$500,000, system improvements.

FOREST CITY — Rutherford Electric Membership Corp., \$53,969, REA Project North Carolina 25M Rutherford.

GREENSBORO — Guilford Dairy, \$350,000, dairy plant.

GREENSBORO — General Electric Supply Corp., distribution branch, \$75,000.

LEXINGTON — Davidson Electric Membership Corp., \$195,000, headquarters facilities and system improvements.

LOWELL — Reamitt Mills, Inc., \$100,000, alterations to mill.

RALEIGH — Nick Russos & Son, \$40,000, dry cleaning plant.

RALEIGH — B. C. Allen, \$15,200, filling station.

RALEIGH — S. D. Alexander, \$22,470, filling station.

SALISBURY — Southern Bell Telephone & Telegraph Co., \$60,000, alterations and additions to building.

SHELBY — City, revamping electric system.

TARBORO — Edgewood Martin Electric Membership Corp., \$52,560, headquarters building.

WAYNESVILLE — Haywood Electric Membership Corporation, \$41,062, North Carolina 19 K Haywood, Section 1.

WILMINGTON — Atlantic Coast Line Railroad, 16 mile extension, \$750,000.

WINSTON-SALEM — Southern Bell Telephone & Telegraph Co., addition to building.

OKLAHOMA

CUSHING — Shell Pipe Line Corp. & The Texas Pipe Line Co., 500-mile common carrier pipe line, \$22,000,000.

LAWTON — Leonard Fletcher, Harold Anderson and Lewis Livingston, business building, \$10,000.

LAWTON — Carl C. Capshaw, building to house auto spring factory, \$16,000.

MCLESTER — W. G. Shipley Baking Co., \$117,000 plant.

STIGLER — Cookson Hills Electric Cooperative, 107 miles of rural electric lines, \$80,000.

TULSA — Sunray Oil Corp., 6-inch pipeline.

OKLAHOMA CITY — Oklahoma Gas and Electric Co., \$14,000,000.

SOUTH CAROLINA

South Carolina Public Service Authority, Moncks Corner, transmission line.

AIKEN — Aiken Electric Cooperative, \$25,000 warehouse and office building additions.

BAMBERG — Edisto Electric Cooperative, Inc., 96 miles of REA lines.

CHARLESTON — James F. Condon & Sons, Inc., building, \$206,865.

COLUMBIA — Wilson Motors, Inc., auto sales and service building, \$200,000.

COLUMBIA — Lyles Ford Tri-County Power Authority, hydro-electric projects, \$60,000,000.

CONWAY — South Carolina Public Service Authority, transmission lines.

GREENVILLE — Nehi Bottling Co., bottling plant.

UNION — Monarch Mills, Inc., alterations to building, \$32,544.

WHITMIRE — Aragon - Baldwin Mills, \$150,000 mill.

TENNESSEE

CHATTANOOGA — Columbian Iron Works, extension to foundry.

CHATTANOOGA — Central Franklin Process Co., addition to plant.

CHATTANOOGA — Addition to Mill No. 2, Standard-Coast Thatcher Co.

CHATTANOOGA — Nelson-Collins Nash, Inc., automobile sales and service building, \$110,000.

DYERSBURG — Thompson Brothers, Sytz Fabrics, Inc., building, \$75,000.

MEMPHIS — Heyden Chemical Corp., expansion of plant facilities.

MEMPHIS — Pan American Petroleum Co., \$35,000 addition to canning plant.

MORRISTOWN — American Enka Corp., synthetic yarn plant.

NASHVILLE — Mengel Co., Louisville, Ky., add to container producing facilities.

NASHVILLE — May Hosiery Mills, \$150,000 addition to cafeteria and locker space.

TEXAS

ALICE — Wholesale Grocery Co., \$45,092 warehouse and office building.

ATHENS — New Era Electric Cooperative, \$100,000 65 miles of REA lines.

BARTLETT — Bartlett Electric Cooperative, 131 miles of REA lines, \$100,000.

BEAUMONT — Carnation Co., milk plant, \$60,000.

BEAUMONT — Southwestern Bell Telephone & Telegraph Co., building addition.

BELLEVILLE — San Bernard Electric Cooperative, system improvements, 127 miles of line, \$200,000.

BISHOP — Celanese Corporation of America, shop building.

BROWNSVILLE — Standard Oil Co. of Indiana, chemical plant, \$15,000,000.

DALLAS — Alford Refrigerated Warehouses, concrete paving of two warehouse floors and 100 feet wide street to bisect warehouse buildings, \$231,435.

DALLAS — Sharp & Dohme, Inc., brick and steel building.

DALLAS — Superior Rug & Carpet Cleaning Co., building addition, \$28,833.

DALLAS — First Texas Chemical Co., factory building, \$150,000.

DALLAS — Coca Cola Bottling Co., remodeling of plant, \$12,000.

DALLAS — Churchill & Barry Construction Co., office and plant building.

DALLAS — T. S. Mengel Plywoods, office and warehouse, \$40,000.

DALLAS — Lower Colorado River Authority, electric power and communications lines and radio tower.

DALLAS — H. Tidwell, laundry building, \$26,000.

DALLAS — Rath Packing Co., packing plant.

DALLAS — Methodist Publishing House,

\$376,000 addition.

DENISON — Corps of Engineers, power house Unit No. 2.

EAGLE PASS — Coca Cola Bottling Co., warehouse.

FLOYDADA — Floyd County Electric Cooperative, 100 miles REA lines, \$24,830.

FORT WORTH — Texas & Pacific Railway Co., 130 miles of heavyweight rail, \$3,287,000.

FORT WORTH — Colonial Circulation Co., office building.

FORT WORTH — Stafford-Lowden Printing Co., warehouse and sales building, \$33,013.

FORT WORTH — Southwestern Bell Telephone Co., cable, wire, switchboards, telephone instruments, dial equipment and buildings, \$25,000,000.

FORT WORTH — Leonard Brothers, warehouse and sales building.

FORT WORTH — Carrier Publications, Inc., television tower, \$50,000.

GILMER — Upshur County Electric Cooperative, clearing rural electric lines, \$44,552.

GROESBECK — Limestone County Electric Cooperative, 242 miles of distribution lines.

HEARNE — Texas Company, compressor station.

HIDALGO — Joseph E. Pate, railroad bridge.

HOUSTON — Production Service Co., warehouse and service building, \$38,710.

HOUSTON — Cook Paint & Varnish Co., manufacturing plant.

HOUSTON — Hyman and Aaron Finger and Chicago Associates, \$1,500,000 warehouse center.

HOUSTON — Technical Instrument Co., building, \$46,222.

HOUSTON — National Biscuit Co., bakery building, \$342,500.

HOUSTON — Ruff Laundry, addition to present laundry.

HOUSTON — Houston Light & Power Co., electric power sub-station, \$1,000,000.

HOUSTON — Browning Ferris Co., addition to present warehouse.

HOUSTON — Texas Star Broadcasting Co., Roy Hofheinz, Pres., broadcasting plant, \$500,000.

HOUSTON — Humble Oil and Refining Co., addition to Katy gas cycling plant, \$6,960,000.

HUNTSVILLE — Southwestern Bell Telephone Co., addition to building.

JUNCTION — Kimble County Electric Cooperative, 312 miles distribution lines.

JUNCTION — Kimble Electric Cooperative, clearing right of way for REA lines, \$15,800.

LIBERTY — Elmer Rabliff, Liberty, addition to present power plant, \$32,982.

LUBBOCK — Milling Plant—Standard Milling Co., 4-story milling plant, \$260,000.

MARSHALL — Southwestern Bell Telephone Co., addition.

MASON — City—Distribution system, \$92,800.

MCALLEN — Southwestern Warehouse Co., cotton compress.

MULESHOE — Bailey County Electric Cooperative, 108 miles of rural electric lines, \$350,000.

NEW BRAUNFELS — New Braunfels Textile Mills, dyeing building, \$12,428.

OAKVILLE — Western Natural Gas Co., steel, concrete and masonry plant, \$750,000.

ORANGE — Sabine Supply Co., warehouse

(Continued on page 76)

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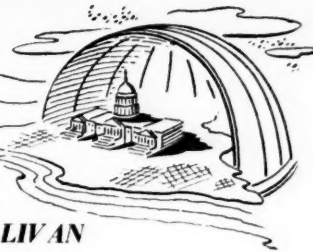
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Potomac Soundings

by LAWRENCE SULLIVAN



Whither Wallace?

Prospects for a third party in the 1948 presidential campaign were livened last month by Henry Wallace's intensified speaking tour, which took him into no less than thirteen States. His appearances were sponsored chiefly by CIO labor organizations and independent political groups generally associated with the Communist party line.

At Trenton, N. J., on September 22, Wallace said: "The very few Communists I have met have been very good Americans."

Two days later, William Z. Foster, national chairman of the Communist Party in the U. S., said in Portland, Oregon, that Henry A. Wallace was his party's choice among prospective presidential candidates for 1948.

On the same day that Foster plunked for him on the Pacific Coast, Wallace told the United Electrical Workers CIO convention in Boston that the program to eliminate avowed Communists from the federal civil service was an affront to the traditions of America.

"They cry Communism, but their real fear is democracy," he said.

At the conclusion of this address, there echoed throughout the convention hall cries of "Wallace for President," and "We Want Wallace in '48."

In his Trenton address before the New Jersey Independent Citizens League, Wallace appeared to anticipate the Foster endorsement, which came two days later.

"I am most happy to work with socialists and with Communists, or with any other group that wants to promote understanding with Russia," he said.

He urged that all U. S. military expenditures be diverted to housing, public health, and social security.

"I distrust an Administration whose key policies are being determined by military men and Wall Street men."

These utterances assume real political significance only in the event that Wallace determines at length to head up a third party. Until that decision is made, he remains just another political gadfly barnstorming for the Kremlin party line.

As the torch bearer of all the Moscow party-line groups, Wallace is the only rallying force which today unifies American Communism on a truly national scale. But within this group, always beset by powerful centrifugal tendencies, there is

sharp cleavage on the third-party issue. Wallace and his advisers prefer to work within the Democratic party, to exercise their influence in the national convention, possibly to name the vice-presidential candidate. Foster and the Communist Party leaders, on the other hand, would prefer a third party ticket in the northern industrial areas and California. This would not be called the Communist Party, but it would be the Communist Party to the extent that Foster and his group would offer no competing ticket on the Left.

From the standpoint of the Communist Party itself, the amalgamation with Wallace offers an alluring prospect. For without such an alliance, the Communists, on their own, could not show sufficient strength to place themselves on the ballot in several pivotal States. That failure to qualify would mean extinction.

Thus Henry Wallace is the Communists' one best hope of averting a total eclipse in '48.

But Wallace has been careful thus far not to burn his bridges to the Democratic national convention.

He denies vehemently that his political tirades against American foreign policy subvert the traditions and tenets of the Democratic Party. He denies that fundamental Americanism is a proper test of political loyalty regularity. He rejects the thesis that a political leader could not be sincerely loyal to both Truman and Stalin simultaneously. He denies that Russian policy is at war with the United Nations' program for peace and reconstruction in Europe and Asia.

In voting strength, Wallace probably represents as much as ten per cent of the electorate in some of the great metropolitan areas, as New York, Boston, Pittsburgh, Chicago, Cleveland, and Los Angeles. Outside such natural nests of radicalism, he represents perhaps two per cent of the electorate. For the nation as a whole, he might rally 4,000,000 votes for a third party ticket—if it did not bear the Communist label.

Since Wallace has already been endorsed publicly as the preferred candidate of the Communist Party in America, perhaps it would be good strategy for the Democrats to hand him over to Foster bodily? A formal resolution reading him out of the Democratic Party could accomplish that overnight.

Wallace then could stand four-square with the Kremlin as the unchallenged leader of Communism in the U. S. His present position, with one foot in the Democratic Party and one in the Communist is untenable for Wallace and embarrassing to everybody else concerned.

Food Exports and the H. C. L.

Despite Europe's urgent appeals for broader measures of American assistance under the Marshall Plan, Washington is not yet ready to offer an integrated long-time program for overseas relief and reconstruction.

However generous the sentiments of the American people toward the hungry and war-weary peoples of Europe, the immediate home pressure of the high cost of living is becoming a restraint of increasing power upon all European aid discussions.

Europe's principal and immediate need is food, yet it is precisely in food items that the domestic price situation is threatening its most troublesome political complications. Indeed, so urgent has the domestic pressure become that White House advisers are earnestly seeking some new formula for European assistance—a method which would first set aside minimum needs for our home markets, and then apportion only farm surpluses to relief.

If such an arrangement were at hand, Congress would be called into special session immediately. Majority sentiment in Congress is aggressively in favor of assisting European recovery as speedily as possible. But there is obviously growing sentiment since the July adjournment for preliminary measures of price protection at home—a determination to give American buyers first call on American supplies at something like reasonable and fairly stable prices.

Under the present export procurement program, every purchase for Europe is made in direct competition with the full domestic demand, with the result that we are steadily bidding up domestic prices with our own loans abroad. This is an inflationary factor which easily might get out of hand. Yet the alternative—to summarily choke off all emergency shipments to Europe at the outset of winter—is all but unthinkable.

In broad terms, our food exports during 1947 have averaged roughly three or four times our 1939 normal shipments.

Monthly average wheat exports this year were 20-million bushels, compared with a 1939 monthly average of 5,268,000 bushels.

Corn exports were 13-million bushels in June and 11-million bushels in July, compared with a 1939 monthly average of 2,600,000 bushels.

This year we have been exporting roundly 700,000 boxes of oranges every month, against 500,000 a month in 1939.

Vegetable exports this year have been

Potomac Soundings — by Lawrence Sullivan

running \$4,700,000 a month, against the 1939 average of \$900,000 a month.

Meat exports have been running about 30-million pounds a month, or double the 1939 average.

Shipments of dairy products have been averaging \$25,000,000 a month this year, against the 1939 average of \$600,000 a month.

Our normal coal exports averaged 1-182,000 tons per month in 1939, but this year we are shipping roundly 6-million tons a month.

So the comparative figures run, through sugar, leather, naval stores, timber, iron and steel, tin, paints, rubber, cotton fabrics, paper, glass, machine tools, and agricultural equipment.

Some exports are running only double the 1939 average, but several—particularly steel products, motor cars, farm equipment and industrial machinery—are running better than five times the 1939 monthly average.

Since most of these exports are financed by U. S. credits, they are being taken from the American market at competitive prices with our own domestic demand. The more we try to hasten the export program with additional gifts and credits, the higher must the domestic price level go.

In some official quarters there is a disposition to dismiss these heavy exports in the domestic price discussions, on the ground that total exports are running only about \$15-billion a year, out of a total national income of more than \$190-billion.

Yet the fact remains that the abnormal export demand stands out as a controlling factor in our daily markets.

The problem before the Congress, as defined in the preliminary exchanges, is to limit exports to that margin of our maximum productive capacity which is truly surplus over domestic demand. Until such a formula is applied we shall be merely advancing new loans to make higher domestic prices—and so generate the need for still more loans abroad.

The problem is real. It can't be solved by political maneuvers aimed at 1948. Only wise management can stem the inflationary tide which now sweeps the world. Nothing could be better calculated than our present haphazard export policy to impair the world's one best hope for reconstruction—America's mighty productive power.

Communism In Hollywood

Charges that the motion picture industry gave itself freely to Communist propaganda films will be examined in detail before the House Committee on Un-American Activities beginning October 20. No less than 43 witnesses, including some of the brightest stars in the movie firmament, have been summoned. The inquiry is to open on the question of alleged political influence brought to bear from Washington in favor of the production of two feature films, "Song of Russia," and

"Mission to Moscow," the latter a somewhat fabulous dramatization of the recollections of our former Ambassador to the Kremlin, Joseph E. Davies.

In earlier hearings, witnesses charged that both pictures lauding Russian Communism had been produced in direct response to White House pressure from Washington.

The Hollywood inquiry began before a sub-committee in California on May 12-15. That session produced one Hans Eisler, one time German Communist, who had been admitted to the U. S. early in 1939 following the personal intervention of Mrs. Eleanor Roosevelt in his passport case, then stymied in the State Department under a notation which said—"The evidence establishes preponderantly that Eisler is a Communist. . . ."

Under date of January 11, 1939, Mrs. Roosevelt wrote on White House stationery to Sumner Welles, Under-secretary of State, urging that the entire case be reviewed.

"Why not do it all over again and bring it out in the open and let the Eislers defend themselves?" the First Lady's letter concluded.

Four weeks later Mrs. Roosevelt wrote to Welles again:

"Dear Sumner—This Eisler case seems a hard nut to crack. What do you suggest? Sincerely, E. R."

Hans Eisler is a brother of Gerhart Eisler, convicted in Washington two months ago on charges of passport fraud. In that trial, Gerhart was identified as the No. 1 Communist agent in the U. S.

Brother Hans was at one time director of the International Music Bureau in Moscow, an agency of the Kremlin. When his passport had been approved following Mrs. Roosevelt's intervention, he located in Hollywood, where committee investigators found him last May as a leader in the Communist movement in the film world.

Hollywood has long been identified as one of the principal sources of Communist contributions in the U. S. Several top stars have been identified as regular contributors to Red enterprises throughout the country. Through its preliminary investigations, the House Committee investigators now have identified the principals in filmdom's Communist wing.

Equally big names among the actors, writers and producers have assisted the Committee in its work to date. The October hearings are calculated to lay bare for national examination the whole Red network in the film industry.

The story promises to be sensational and revealing, not only for the glamorous names, but for the true dimensions of organized Communism within the film industry—perhaps the most subtle and all pervasive propaganda medium available to the subversive elements.

Official figures indicate that total movie attendance in the U. S. averages between 60,000,000 and 90,000,000 a week.

Hurricane Crop Damage Severe

A special survey by the Department of Agriculture estimates crop losses in Florida at 10 to 50 per cent in the direct path of the September hurricane, but in many vegetable areas much of the loss will be recovered by re-seeding. Only in oranges and grapefruit are the wind losses beyond repair for the season.

The September 17 hurricane swept in over the entire area between Miami and Palm Beach, thence across the State to the Fort Myers area. Along the southward edge of this path the winds attained a maximum of 100 miles an hour over some of the richest vegetable gardens in the country, with general damage from wind and rain described as "severe." But in Orange county, half way up the peninsula, the maximum wind velocity was only 50 miles.

"Citrus fruits in the immediate path of the hurricane were also heavily damaged, but the full force of the storm missed the principal citrus area of the State. It appears . . . that Florida growers may have lost 4-million to 5-million boxes of grapefruit and 1-million to 2-million boxes of oranges."

Vegetables in the Everglades area suffered severely, with some 4,000 acres of snap beans swept out. In the Fort Myers area the heaviest losses were in eggplant, cucumbers, and peppers. Tomato losses averaged about 50 per cent over the entire storm area, with at least 7,500 acres scheduled for re-seeding.

While grapefruit losses in the southern end of the peninsula ran as high as 50 per cent, oranges lost in this section were only 10 to 20 per cent.

For the State as a whole, combined citrus losses probably did not reach 20 per cent.

Next to crops, the fishing industry suffered the greatest hurricane losses, according to a telegraphic survey by the Interior Department. Along the South Atlantic and Gulf Coasts some 1,500 vessels and 12,000 small boats are engaged in the commercial fishing.

"Reports indicate that in some sections nearly one-fourth of the fishing fleet was destroyed or severely damaged. The heaviest damage occurred along the Mississippi and Louisiana coasts, center of the valuable shrimp fishery."

Interior Secretary Krug at once invoked the disaster clause of the Reconstruction Finance Corporation to assist fishermen re-establish their fleets. Applications for disaster loans may be submitted direct to the RFC regional offices at Western Union Bldg., Jacksonville, or 348 Baronne Street, New Orleans.

Burning Unmined Coal

New frontiers in coal technology are charted in the final report on underground gasification at the Alabama Power Company's mine at Gorgas, Ala. The full report is available from the U. S. Bureau of Mines, Department of the Interior.

In the Gorgas experiment, an isolated mine was developed about 30 feet beneath the hilltop, offering a pillar of solid coal 40 feet wide and 150 feet long.

LITTLE GRAINS OF SAND

*"Little drops of water, little grains of sand,
Make the mighty ocean, and the pleasant land."*

Recent testimony of steel producers before the steel subcommittee of the Senate Small Business Committee constitutes the most complete answer yet given to those who favor immediate large-scale expansion of steel capacity. They pointed out that a 10 to 30 million ton expansion would require more scrap than is now in sight; development of new iron ore resources before the industry is physically prepared to utilize low-grade ores; that suitable metallurgical coal is not now available in sufficient quantities; that finished steel urgently needed now by consumers would be diverted to create new steel facilities; that increased construction costs would necessitate that steel produced in the new facilities be sold at prices \$15 to \$20 a ton above prevailing quotations; that new capacity started now could not be finished until after supply has balanced demand and that labor to build and operate the new facilities is not now available. The points overlooked in this controversy are: that steel producers agree that more capacity is needed, that more capacity is now being provided, and that steel men know more about making steel than government economists.

E. A. Charlton, consulting engineer of New York, advises the nation to look to the deep South rather than to Alaska for newsprint and paper supplies. Surveys show there would be a production cost differential of \$10 per ton in favor of the South, according to conservative estimates, on standard quality newsprint. Adding to the attractiveness of the possibilities of development of the newsprint industry in the South is the visualization of a production of two million tons annually in this section, and what is more, "all of this production will be low cost production paper, competitive with not the average but the best northern mills.

It is interesting to note that in practically every locality where a high level of employment exists that a major problem in recruiting the needed labor is finding a place for workers to live. This tight housing condition not only applies to the larger cities but to almost every small town. This factor alone makes it difficult to be other than optimistic on the housing construction outlook despite high costs.

An advertisement of the Treasury Department says: "The United States Government protects every dollar you invest. For example, you have an absolute guarantee that, in ten years, you'll get back \$400 for

every \$300 you put in Series E Bonds." But in the light of the inflation that has occurred and is continuing to occur what will the \$400 be worth ten years from now? Will it buy as much then as \$300 will buy now? The government will undoubtedly protect the dollar—whatever that may mean—but will it be able to protect the *buying power* of the dollar?

In a case between the United Oil Workers (CIO) and the National Labor Relations Board the anti-communist affidavit provisions of LMRA have been upheld as legal and constitutional by Federal District Court at Fort Worth, Texas, in holding that NLRB need not count ballots in the election held at Deep Oil Development Company at Wichita Falls, until the local and national officers of the United Oil Workers and the CIO have complied with the provisions of the new act.

Despite the sound and fury over union registration under the NLRB, most informed observers of labor relations predict that eventually both the CIO and AFL will sign the distasteful anti-communist declarations. Pressure from the "grass roots"—from the locals which are feeling the need of NLRB certification in their organizational work—is building up to the point where union leadership will be compelled to make good on its oft-repeated promises to clear communism out of the high ranks of organized labor.

A gold monetary standard is one of the most powerful instruments that the people of a nation can employ in exercising their popular control over their government's management of the public purse. Whenever in modern times, a government dictatorship is found there, also, is found a managed or planned economy made possible by a substitution of irredeemable paper money for a currency based on gold—in other words the abolition of a firm gold standard.

In a nation of privately initiated enterprise, advertising is the essential stimulator and lubricator of industrial progress. When and if advertising slows down, so does distribution; then production; next employment—and then pay rolls decline. Advertising is the economic regulator that allies itself with other selling and distributing forces to coordinate and connect the two poles of our economic world—supply and demand.

(Continued on page 26)

**Government, in 1946, cost the
public more than food.**

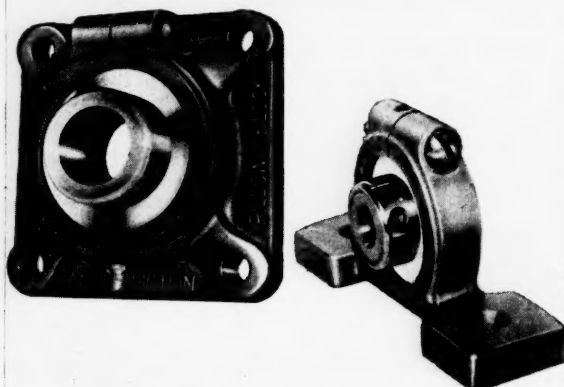
**We can do better with less gov-
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food.**

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—eliminate noise and chatter although excessive high speed is attained.

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strength aluminum alloy incorporates necessary strength with a great reduction in weight. Has a 30% greater carrying capacity than the ordinary ball bearing.

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of the ball bearing itself. Eliminates possibility of it becoming loose within the housing.

★ **SELF-ALIGNING**—bearing will always be in perfect

alignment with the shaft, regardless of irregularities of base on which it is mounted. This eliminates bearing strain or friction.

★ **ADAPTER BUSHINGS**—lock to shaft with two set screws,

making each basic pillow block accommodate several different sized shaft diameters.

★ **RANGE OF SIZE AND STYLES**—adaptable for any

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(Continued from page 25)

A subcommittee of the House Small Business Committee, after exhaustive inquiry, has recommended that the Federal Government sell the Mississippi and Warrior river barge systems. "Throughout hearings the preponderance of testimony by those who would be affected most by the liquidation of the barge lines has been to the effect that the Government should get out of the business but not until the same service is provided by private capital," the report said.

The committee recommended that the Mississippi River unit be sold as a going concern, with the Government meantime approving its rehabilitation. The Warrior River unit, the report said, should be sold as quickly as possible. Suggestion was made that interested communities consider formation of a corporation to take it over.

For over a dozen years, savers and the act of saving have been under attack from many angles and by a variety of devices. We have had what has amounted to an anti-saver program as a national governmental policy. It has manifested itself in a variety of ways. There have been the governmentally-enforced low interest rates. To make the resulting small returns still less effective, we have embraced various programs for currency depreciation. There has been almost no good word said in official circles in behalf of saving or savers. Instead, spending programs of almost every conceivable sort have been embraced. Money was to be put in the hands of consumers "to create purchasing power." The national economic pie was to be cut up and distributed. A tax was laid on undistributed corporation surpluses. Our less thrifty people have been led to rely upon the government for support, both in the present and in the future. Inefficiency and high-cost producers have been subsidized at the taxpayers' expense, and efficiency has been penalized by extortionate taxes and otherwise. The notion has been cultivated that savers are withholders of wealth and income from society, and that they are parasites resting upon the backs of the poor, the indigent, and the unfortunate.

—Prof. Walter E. Spahr.

You have seen reams of publicity about magic new materials. What about this one?

This is a material that is light in weight, which can be shaped and formed by hand or with high speed tools. It can support hundreds and thousands of times its own weight as a beam or as a column, can be pre-cut by line production methods and fabricated to close tolerances. It can be used to serve in thin panels as a membrane to cover hollow spaces, and provide of itself a natural insulation against the elements of temperature, moisture, and the like.

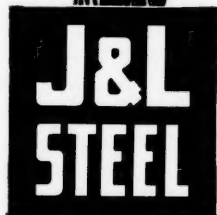
It will stand weathering for countless generations in its natural form, and withstand the abrasion of numberless footsteps and the impact of wheels. It is easily treatable with a multitude of supplementary decorative finishes to suit the whimsical tastes of the individual, it will never rust or spall, and will retain

(Continued on page 28)



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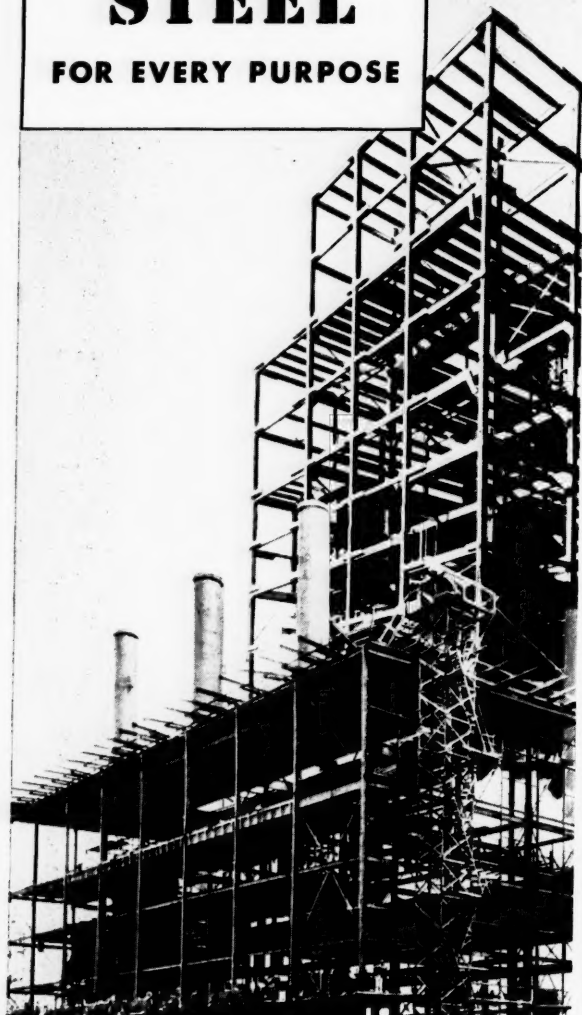
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(Continued from page 26)

its strength longer under fire exposure than so-called incombustible steel. It can be sawn, turned, nailed, chiseled, carved, bolted, screwed, glued, bent, bored, sanded, planed, stained, coloured, painted, impregnated, and hardened.

There is such a material, but it is not brand-new. Evolution, the great inventor, and Mother Nature, the greatest chemist of all time, have made us a free present of wood, that miracle material I have described.

—Excerpts from a talk by Richard G. Kimbell, Director of Technical Services, National Lumber Manufacturers Association.

Harry Wohl, chief of the St. Louis *Star-Times* Washington bureau, in a study prepared for that paper from Treasury and Commerce Department figures discloses, among other interesting things, that the price paid by the people of the United States last year for their Federal government exceeded the price they paid for food. In the calendar year 1946, the Federal government spent only a little less than \$45 billion. In the same year, the people spent \$2 billion less than that—\$42.9 billion—to keep themselves alive.

Excessive taxation is damming the stream of investment capital that is necessary to support research in industrial and university laboratories. Excessive taxes on the higher income brackets have made unavailable the only potential source of fresh private capital and high corporation taxes have made it difficult for industry to use its own profits for expansion and development. The net effect will be to throw research into government and military laboratories, which have not yet demonstrated that they can handle the work efficiently. This will be true unless industry and individuals are allowed to retain enough surplus capital to support industrial research projects and to endow colleges and universities so that the next generation of scientists may receive ample training.

The Taft-Hartley Act will have little or no effect on the day-to-day relations between the employee and the company in the opinion of two-thirds of the executives queried in a survey conducted by the National Industrial Conference Board. With few exceptions, these queried in this survey are confident that, in the long run, the effects of the Act will be beneficial to the employee, the union and the company. Expectations for improvement seem to be based on these grounds: (1) Companies will have greater freedom to clarify their position to employees; (2) Employees will henceforth be protected against the malpractices of both unenlightened labor leaders and executives; and (3) Unions will develop a more responsible attitude and a more reasonable bargaining approach.

MANUFACTURERS RECORD FOR



"What Enriches the South Enriches the Nation"

The European Dilemma

Conditions in Europe west of the Iron Curtain are desperate. We suspect that they are even worse east of the curtain, but we have been told that that is none of our business. Either willingly or unwittingly, the United States, however, has become vitally concerned with the welfare of sixteen non-communist European nations.

Our diplomats, statesmen and legislators, while shadow boxing with a nebulous bogey have failed to present a sane picture of the situation abroad that faces us as a democratic nation of humanitarians. For the most part their public statements are addressed to our emotions rather than to our reason. They seek to arouse our sympathies and our fears.

Without delving into the myriads of details describing actual conditions abroad it seems to us that our thinking could be clarified, and our decision as to a course of national action could be simplified, if we first recognized the fact that the problem is a dual one, interrelated though its parts may be. One part of it is economic and has to do with helping to put the peoples of Europe who sincerely desire it back on their feet and keeping them from starving in the interim, and the other is political, and can be stated in a very few blunt words: restraining communism so that it will die on a rotting vine.

Another way of stating this problem is to ask ourselves how much we can afford and still maintain a healthy domestic economy, (to help rehabilitate the civilized part of Europe) and how much we can afford not to do to contain communism and prevent a devastating war.

Let's forget pity for the plight of Europeans and fear of the Muscovite Bear for the moment. Let's recognize the fact that a lavish giver can destroy the source of his gifts and himself with them. Govern-

ment purchases of foodstuffs for foreign relief is the principal cause of present exorbitant food prices, which in turn is one of the primary causes of our rising cost of living and the inflationary spiral. How far and for how long can we afford to let this continue?

Discarding emotionalism, let's nationalize as well as rationalize our thinking. While we admit that we despise communism for the same reason that any honorable man abhors a liar and a cheat, let's admit as a nation, that we are dealing with an international criminal that plays the role of sneakthief or bully as temporary circumstances dictate. Such a desperado eventually must be either cured or executed. Curbing him temporarily is only procrastination unless it leads to a plan that can become a cure.

If by helping Europe to help itself under the Marshall plan or any other that is practical and workable we are promoting our national security and welfare then no price short of the destruction of our own democratic institutions is too great to pay. But if by helping Europe temporarily we are merely pauperizing those unfortunate nations and fertilizing their soil for the seeds of communism then we are increasing the eventual odds to be arrayed against us as a peace loving nation.

Since charity, it is claimed, should begin at home, let's admit frankly that our first concern is for ourselves and that we want to help other peoples to help themselves so that they can line up as allies with us against a common danger. Honestly admitting this, let's gamble on the vitality of the sick nations of Europe. If we don't, our only other course is to call Russia's bluff and expose her for the rotting shell that she may be or declare war on her to destroy communism at its noxious source.

Where Every Prospect Pleases

The South is prospering. Elsewhere in this issue of MANUFACTURERS RECORD appears a study of the Southern labor force. It shows that Southern people are fully employed, enjoying individually and in the aggregate better earnings than ever before. Whenever a labor force is fully employed at good wages, it goes without saying that their employers should be making satisfactory profits.

Nothing can do more to perpetuate prosperity than a full understanding of the forces that have brought this condition about. Let's look at the South and try to see what these forces are.

First, there is apparent the inherent resilience of a virile race of people, set in a region well endowed by nature. This combination has been teamed in action for many years. The odds against which it was pitted for a long time after the war between the states had the effect of obscuring it during much of that time. Nevertheless, a discerning look into the past cannot miss its presence.

In prosperous years of the past two decades the South has gained percentage-wise more than other sections. In lean years, it has lost less. Its relative growth was especially noticeable during depression years.

The present prosperity of the South, however, is the result of more than just teamwork between man and nature. There has been added an impetus which can come only from events of an unusual kind. It is this impetus which the South must keep alive to perpetuate progress.

Expanding industrialization supplies this impetus. In frankness it must be admitted that not all of past expansion was the result of Southern effort. Much of it happened because of circumstances over which Southerners had no control. But now, in order for the South to maintain the momentum of its economic progress, it must cure two fundamentally unsound practices of which it has hitherto been guilty.

Southerners must tell their own youth of the advantages of the South. They must convince them what other sections know, that the grass of opportunity is greener right in their own backyards than it is in those of their neighbors. And Southerners must convince themselves that it is to their advantage as individuals to stop sending their investment capital elsewhere and to use it instead to fertilize the rich soil of their own business neighborhoods so as to insure that their own grass grows ever greener.

There was a time, perhaps, when there was some reason for a Southern youth to migrate to another region to "seek his fortune." If that was once true, it is no longer so. There is no better place in the world today to make a profit, or to found a career, than in the South.

The South should not permit its best young talent to be drained off year after year each time a new crop pours out of Southern colleges and universities. It is said that commencements at Southern colleges re-

semble athletic debuts, with scouts from northern and eastern industrial centers on hand to grab off all the talent that can be had.

And while this has been going on, Southern towns and cities have been seeking talent in other sections to start new industrial enterprises or to help man expanding ones. What has grown to be a habit through long years of usage, should now be cast aside in the interest of plain common sense.

Not only should the exodus of ambitious manpower be checked but the migration of tangible wealth as well. Southern banks are bulging with money today, made by Southerners, right in the South. Its owners need only to open their eyes to see that it cannot be better put to work than right where it came from.

Southern investors can learn from the railroads and the utilities that operate in their communities. So clearly do these enterprises see the truth of this home investment principle that they spend beyond hope of immediate return to develop Southern resources. Examples are numerous where a utility or a railroad has gone, not to a shipper, but to a tiller of the soil, or an owner of idle mineral land, to give aid in developing a product that meant little immediate revenue but held good hope for the future. The grape juice industry of Arkansas is an example. That growing young business is the result of persistent railroad cooperation expended over a period of years. It is but one example of many.

None of this is written to suggest that the South as a region can or should withdraw into itself. The South can and should interchange freely with other sections. It is merely written to say that there is no point in the South sloughing off that which it needs so badly, only to go out and buy it back at a higher price.

Southerners, workers and employers, are in good shape. A bright future lies ahead for them—provided clear thinking and local optimism replace outmoded bad habits of thought.

Senator Byrd Says:

For nearly 14 years we have legislated in an atmosphere of emergencies and crises making proper consideration of vital matters impossible. In the past two years this country has expended nearly 20 billion dollars in foreign aid. Our citizens have the right to know what has been done with this money; what benefits have been derived; to what extent world security has been strengthened. If, after spending such vast amounts abroad, world conditions are not improved, and they do not appear to be, the American people should be informed of the reasons for the failure. They are entitled to a completely frank and accurate appraisal of the foreign situation. There has been none since the end of the war.

Before appropriating new billions, the American people and their representatives should have (1) a full accounting of what has been done and the results, and (2) a bill of particulars of what the Administration plans to accomplish in the expenditure of additional funds to be requested.

Hurricane Sweeps Gulf Coast Area

(International News Service)

Much of Estimated \$100,000,000 Loss Placed in Crop Destruction

THE great hurricane that roared in from the Caribbean on September 17th and twisted its way in full fury through Florida, Louisiana, Mississippi, and Alabama before spending its force in Arkansas, left a toll of devastation in its path estimated at close to \$100,000,000. It was considered the worst and most destructive hurricane of the past twenty years.

Within days after the storm passed, rebuilding plans already were under way throughout the stricken areas. In the Bay St. Louis, La. region, materials for rebuilding the destroyed Louisville and Nashville railroad bridge there were being moved in shortly after the main highway was cleared of wreckage and even while the city was under martial law. Elsewhere too new materials were pouring in for industrial replacement and reconstruction.

But to the farmers who suffered most heavily in loss of their crops, particularly in the citrus and pecan groups, the damage was irreparable.

Florida Damage \$30,000,000

In Florida the hurricane left more than \$30,000,000 in property and crop damage in its debris-littered wake.

That figure represents a total of estimates made in individual communities and farming and industrial areas. The actual amount of destruction inflicted by the devastating winds may not be known for months.

When the vicious winds ripped into the Florida east coast they cut a swath of destruction from the fabulous tourist playground of the Palm Beach-Miami area straight across the Everglades farm lands and over the Fort Myers section of the Western Peninsula.

Even with 140-mile-an-hour winds whipping the lower part of the state, property and crop damages were held at a minimum—principally because Floridians are hurricane-wise and have long learned how to prepare for a mighty tropical storm.

Damages to citrus fruit and large agricultural areas accounted for most of the approximately \$30,000,000 total loss.

The richest citrus belt, which sprawls across the center of the state, was spared the violent wind-lashing, but the Indian River section took a bad beating, losing some 50 per cent of its grapefruit crop and 15 per cent of its oranges. The State Citrus Commission estimated that the overall grapefruit loss to Florida was 10 per cent—or roughly \$2,250,000.

South of the Indian River area, thousands of acres of early vegetable planting were destroyed or severely damaged, but agricultural leaders would not hazard a dollar-value estimate. Floods added to the farmers' difficulties as rain-swollen canals in the Everglades began to slowly overflow their banks, leaving vast areas inundated.

U. S. Sugar Corp., with headquarters

at Clewiston, reported severe damage to its 29,000 acres of sugar cane. More than 2,800 acres of ramié—the miracle plant from which the new master, all-purpose fiber is derived—were destroyed in the Everglades area.

In the tomato and fruit-growing region around St. Lucie County (Fort Pierce) the dollar loss was guessed at \$2,000,000.

The largest loss of property occurred in Palm Beach and West Palm Beach, the two cities that bore the brunt of the strongest winds. The damage estimate there was placed at \$10,000,000. Some 3,000 homes and business establishments were damaged. Beautiful palm fronds were ripped off stately palm trees like leaves in a fall breeze.

With the winter tourist season fast approaching, affected home owners and business men made immediate re-building plans.

In Miami Beach, the most famed of the resort towns, owners of hotels and ocean-front property suffered about \$2,000,000 worth. Picturesque beach cabanas were shattered and construction work on several hotels was wrecked. One hotel, which was under going extensive repairs, set its loss at \$500,000.

Electric light poles were felled in many Southern Florida cities. The Florida Power and Light Co. said its losses in the Everglades and adjoining regions alone would top a million dollars. The only military establishment to report severe damage was the Boca Raton Army Air Field north of Fort Lauderdale. Barracks and hangars there were levelled and the property set-back reached a total of \$3,000,000.

Damage was light on the Florida west coast.

In the Fort Myers area, where the super-hurricane left the coast and skirted into the Gulf of Mexico, damage was estimated at around \$150,000.

Northern Florida escaped the violence of the storm, but a freak tornado blew down 25 homes and a church and damaged other residences at Apalachicola, inflicting damages amounting to several hundred thousand dollars.

Speedy re-building and rehabilitation plans were made in all stricken communities.

The city of Lake Worth, a few miles from battered West Palm Beach, asked the War Assets Administration for the loan of two bulldozers, five trucks and other equipment to help in the cleanup job.

Disaster relief offices were established along the east coast to receive requests from individual families.

Both Fort Pierce and St. Lucie County asked for surplus war equipment and material to repair damage.

Municipal authorities at Delray Beach

planned for an immediate re-building of civic structures that were buffeted to the tune of a million dollars worth of destruction.

And the tourist-minded Palm Beach and Miami areas started in with renewed vigor to repair their hotels and generally polish to a winter-time sparkle the splendorous ocean-front sections that annually lure thousands of moneyed vacationists from all over the world.

Louisiana and Mississippi

Rebuilding plans are going forward in the storm battered areas of Louisiana and Mississippi where damages from the hurricane were variously estimated at between \$45,000,000 and \$58,000,000.

New Orleans' Mayor, De Lasseps S. Morrison, estimated New Orleans suffered damages of \$7,000,000.

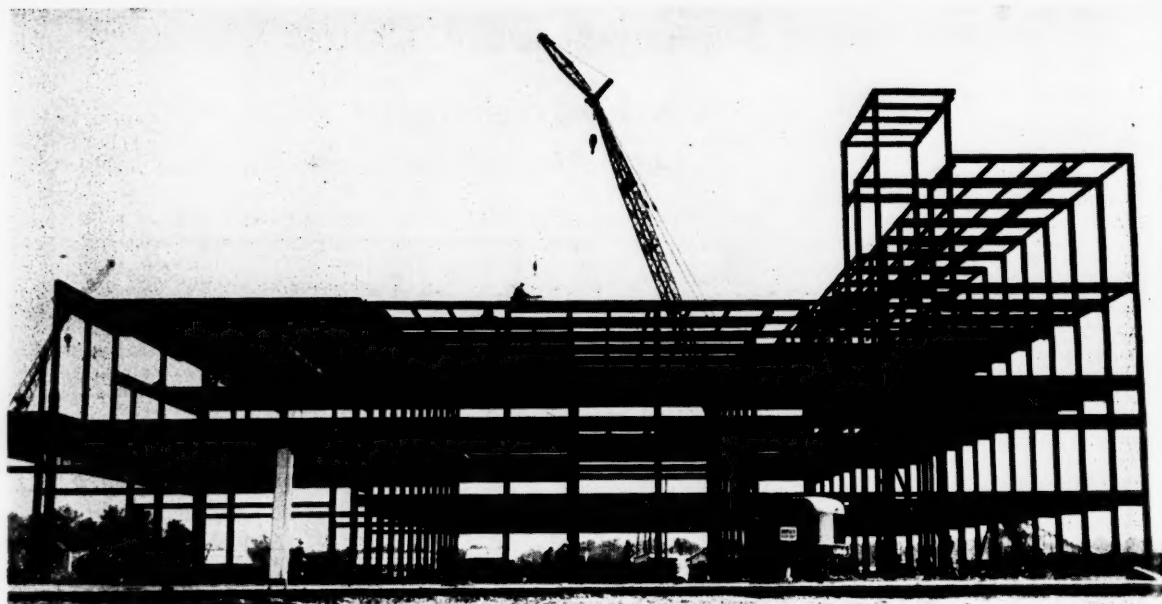
The city in general, however, was practically normal. There was no serious structural damage to buildings in the business section, and damage was so scattered in the sprawling city that no one business will sustain very heavy losses. Most of the New Orleans damage was to elaborate electric signs, ordinary billboard signs, plate glass windows, and fallen trees. The Southern Bell Telephone and Telegraph Company estimated its equipment damage at \$600,000. Most city telephone service was restored the day following the storm, and several tons of new wire were flown into New Orleans. The Michoud Ship Building plant, up for disposal by W.A.A., suffered damage estimated at \$200,000.

Electric power in the business section was not interrupted, even at the height of the storm, but several residential sections were without power for 24 hours or longer. Trolley Bus wiring, installed only recently, was torn down.

There was comparatively slight damage to the city's 12-mile long waterfront, where operations returned to normal the day following the hurricane. Only railroad equipment destroyed was the L. & N. bridge over the bay at Bay St. Louis, Miss., and the railroad announced it was planning immediate rebuilding. Trains were rerouted, and schedules were normal within 48 hours.

The miles of warehouses escaped with scant damage. One banana conveyor was toppled over but can be repaired. A two-block wharf area belonging to the Southern Pacific and valued at \$200,000 was destroyed on the west side of the river. A small section of wharf on the New Orleans side was ripped out when a freighter pulled away from her moorings. The dock board said only damage to cargoes stored was some grain which got wet when a door caved in. It was put into

(Continued on page 35)



Above—DuPont nylon plant being constructed at Chattanooga, Tenn. Ingalls Iron Works fabricated the 1,500 tons of steel.

Nine-Month Construction Contract Value Totals \$1,332,353,000 In The South

September Figures \$144,644,000

CONSTRUCTION contracts awarded so far this year in the sixteen southern states total \$1,332,353,000, a figure that is approximately the same as that for the first nine months of 1946, according to tabulations compiled from reports in the *Daily Construction Bulletin* of the MANUFACTURERS RECORD.

Industrial contracts show the highest

valuation. The aggregate expenditure for expansion of southern industry during the current nine months is \$309,899,000, with private building pressing close for top position with a valuation of \$308,738,000. Highway and bridge construction rank third with a total of \$286,070,000.

The current industrial total overshadows by a fraction of a percent the

\$308,251,000 for the comparable period of last year. Highway and bridges reaching the contract stage in the elapsed months of 1947 indicate more than a six per cent larger value when compared with awards in the same months of 1946.

Public building this year is well ahead of that undertaken in the January-September period of last year. The current \$236,161,000 is over ten per cent greater than its 1946 counterpart. Both public engineering, with its \$191,485,000 total, and private building have slowed when compared with values for such work last year, the decreases approximating six and eighteen per cent, respectively.

September's total for southern construction is \$144,644,000. This is a twenty-one per cent gain over the ninth month of 1946, but a six per cent decrease from the value for the preceding month.

The September total embraces \$52,147,000 for private building, \$33,156,000 for public building, \$24,689,000 for highways and bridges, \$20,522,000 for industrial projects and \$14,130,000 for engineering work.

More than sixty-three per cent of the private building valuation is made up of residential building. Other components in the figure are \$8,999,000 for office type structures, \$5,332,000 for assembly buildings and \$4,662,000 for commercial buildings.

Industrial contracts reported during September were at ebb level, although the \$20,522,000 figure was not the lowest for the year. March's \$17,289,000 was below the current valuation. The peak month for industrial construction so far recorded

SOUTH'S CONSTRUCTION BY TYPES

	September, 1947 Contracts Awarded	September, 1947 Contracts to be Awarded	Contracts Awarded First Nine Months 1947	Contracts Awarded First Nine Months 1946
PRIVATE BUILDING				
Assembly (Churches, Theatres, Auditoriums, Fraternal)	\$ 5,332,000	\$ 6,728,000	\$ 24,151,000	\$ 21,066,000
Commercial (Stores, Restaurants, Filling Stations, Garages)	4,662,000	5,184,000	37,847,000	51,614,000
Residential (Apartments, Hotels, Dwellings)	33,154,000	11,515,000	212,808,000	236,730,000
Office	8,599,000	2,652,000	33,932,000	19,037,000
	\$ 52,147,000	\$ 26,079,000	\$ 308,738,000	\$ 328,447,000
INDUSTRIAL	\$ 20,522,000	\$ 84,621,000	\$ 309,899,000	\$ 309,251,000
PUBLIC BUILDING				
City, County, State, Federal and Hospitals	\$ 11,775,000	\$ 34,210,000	\$ 104,020,000	\$ 130,188,000
Housing	327,000	470,000	5,853,000
Schools	21,054,000	31,503,000	131,671,000	769,600
	\$ 33,156,000	\$ 65,713,000	\$ 236,161,000	\$ 212,967,000
ENGINEERING				
Dams, Drainage, Earthwork, Airports	\$ 4,485,000	\$ 26,248,000	\$ 128,882,000	\$ 162,600,000
Federal, County, Municipal Electric	988,000	10,750,000	13,291,000	22,500,000
Sewers and Waterworks	8,657,000	4,326,000	49,312,000	43,975,000
	\$ 14,130,000	\$ 41,324,000	\$ 191,485,000	\$ 229,077,000
ROADS, STREETS & BRIDGES.	\$ 24,689,000	\$ 43,950,000	\$ 286,070,000	\$ 268,492,000
TOTAL	\$144,644,000	\$261,689,000	\$1,332,353,000	\$1,348,234,000

Right — Sears, Roebuck & Company's new superservice station at Savannah, Georgia.

this year was in January when the total was \$66,029,000.

School projects predominated in the public building field. These in September totaled \$21,054,000, which is the high point of an upward trend that started in July. A negligible part of the value represented public housing work. The balance was for government buildings and hospital projects.

Heavy engineering work rose sharply in September when compared with the preceding month. The \$14,130,000 total was more than twice August's \$6,381,000. Largest division was the \$8,657,000 for sewer and water work. Dams, drainage, earthwork and airports accounted for \$1,485,000. These were substantial increases over August figures. Federal electric projects dropped to \$988,000.

Highway and bridge projects reaching the contract stage were valued higher in September than in the comparable month of 1946. The current ninth month total is \$24,689,000; that for September last year, \$23,248,000. Average monthly figure for southern highway awards this year is \$31,785,000. Last year the average was \$29,832,000. Texas, as in the past led the South in letting highway contracts.

Price levels and material shortages continue to plague builders, particularly those in the residential construction field. From some areas come reports of dearth of millwork; from others, of such items as concrete blocks and reinforcing steel. Tie-in sales are complained of. Lumber stockpiles are said to be disappearing rapidly with mills, in some instances, turning down less than 90-day delivery orders.

Top officials in the construction industry continue to carefully watch the situation. For instance, the governing and advisory boards of the Associated General Contractors of America are meeting as this is printed to study the trends in costs and the availability of manpower, materials and equipment.

Homebuilding activity in August, the latest month for which figures are available, was reported by the Department of Labor at a new high level. The country's private builders, that agency stated, have started 83,000 homes, or 3,000 more than in July and 17,000 more than the number started in August of 1946. Units placed under way in the first eight months of the year number 524,100, exceeding by 56,000 those started in the similar period of last year.

Federal Housing Administration officials, about one week later, announced that 25,166 new dwellings were started in August under that administration's program.

(Continued on page 74)

Right—Mississippi state office building proposed at Jackson, Miss. E. L. Malvaney, Emmett J. Hull, Frank P. Gates and Ransom Cary Jones are the architects for the structure.



SOUTH'S CONSTRUCTION BY STATES

	September, 1947		Contracts Awarded First Nine Months 1947	Contracts Awarded First Nine Months 1946
	Contracts Awarded	Contracts to be Awarded		
Alabama	\$ 3,809,000	\$ 5,212,000	\$ 37,811,000	\$ 53,213,000
Arkansas	713,000	17,323,000	34,207,000	43,663,000
Dist. of Col.	4,010,000	1,950,000	32,996,000	12,777,000
Florida	20,129,000	27,278,000	146,281,000	152,108,000
Georgia	14,015,000	8,855,000	118,500,000	111,983,000
Kentucky	2,391,000	1,805,000	20,912,000	41,064,000
Louisiana	8,150,000	7,933,000	121,018,000	67,466,000
Maryland	11,830,000	21,054,000	114,907,000	120,136,000
Mississippi	3,176,000	11,609,000	56,017,000	57,211,000
Missouri	6,274,000	10,186,000	53,538,000	34,550,000
N. Carolina	6,019,000	5,960,000	53,329,000	64,845,000
Oklahoma	7,368,000	11,324,000	26,421,000	42,957,000
S. Carolina	2,976,000	3,484,000	35,373,000	67,313,000
Tennessee	2,400,000	4,971,000	28,603,000	70,761,000
Texas	45,720,000	85,704,000	374,312,000	346,331,000
Virginia	3,990,000	3,435,000	50,138,000	46,114,000
W. Virginia	1,644,000	1,070,000	27,860,000	11,510,000
TOTAL	\$144,644,000	\$261,689,000	\$1,332,353,000	\$1,348,234,000



South Supplies Nearly Half Of Nation's Lumber Products

Modern Forestry Practices are Vital if New Growth is to Balance Drain

FOR many years the South has been supplying 40 per cent of the nation's requirements of lumber and timber basic products. During the war, even this percentage was stepped up, and in 1945 Southern output equaled 45.8 per cent of all wood products turned out in the United States.

To achieve this record, Southern lumbermen had to increase their sawed board footage by almost 20 per cent—from 10.9 billion in 1939 to 12.6 billion in 1945. During this same period the industry in the rest of the country was doing little more than holding its own. Total board footage was 27.9 billion in 1945 against 25.9 billion in 1939, with the South accounting for practically all of the gain.

In addition, Southern lumbermen more than doubled the value of products turned out by the mills, raising value of production from \$458,000,000 in 1939 to \$938,000,000 in 1945. While a portion of this gain is to be accounted for in higher prices, it should be remembered that from 1942 through 1945 the war agency Office of Price Control held lumber prices practically unchanged.

To accomplish its wartime goal, the Southern lumber industry relied largely on equipment already in place. The number of lumbering operations increased from 5,909 in 1939 to 9,509 in 1945, but by far the greater portion of these consisted of contract logging operations employing small squads of men.

Few New War Plants

While the South gained vast plant expansion during the war, the lumber industry was not among the groups that participated extensively in the gain. In the matter of new producing facilities, Southern chemicals gained to the extent of \$2,046 million; transportation equipment, \$963 million; iron and steel, \$504 million; food processing, \$68 million; textile plants, \$52 million. In contrast, lumber producing facilities gained only to the extent of \$4.5 million.

What is true of the lumber industry is likewise true of that closely related industry, furniture manufacturing. While the latter is not officially classified along with the lumber and timber group, its operation is so closely allied as to be practically inseparable.

Almost nothing other than Southern wood goes into the furniture manufactured in the South. Southern furniture men are therefore peculiarly reliant on Southern lumbermen for their chief supply of material. By the same token, gains made by the two industries during the war were comparable in achievement, and were made under the same handicaps.

Practically no new furniture plants or

This is the eighth of a series of staff articles appearing in the MANUFACTURERS RECORD showing the growth of the major manufacturing industries in the South.

by
Caldwell R. Walker

expansions were granted priorities by the War Production Board. Those that were already established were required to bend their efforts toward making new products. Furniture for home and office was relegated to the dispensable category, and furniture plants turned their hands to making furniture and fittings for battle craft of the air and sea.

Furniture Gain Follows Lumber

Furniture factory output in the South nevertheless jumped from \$355 million in 1939 to \$498 million in 1945, and data being assembled for the 1946 Blue Book of Southern Progress give good grounds for belief that the record for 1946 will top that of 1945.

North Carolina is now the leading furniture producing state of the nation, having risen from third place since 1939, and now topping New York, its nearest rival, by a decisive margin. Moreover, five other Southern states, Kentucky, Missouri, Tennessee, Texas, and Virginia, now rank among the first ten of the country.

It might be noted in connection with priorities for expansion that one single state in the northwest was accorded authorization by the War Production Board to install new wood industry facilities that more than doubled the new installa-

tions granted the entire South.

Despite these and other handicaps the Southern lumber industry came through to register new records in every phase of its operations, and was able to top all the rest of the country in production gains.

Lumbering and the Timber Crop

Lumbering operations within the South in 1945, including logging, sawing and finishing, resulted in product valuation of \$938 million. This figure of course includes many other items than the value of the timber crop alone. Materials, practically all timber, amounted to \$426 million. Lumber cut, however, accounts for less than 50 per cent of the Southern timber crop. Pulpwood constitutes 10 per cent, poles, posts, cross-ties and piling 15 per cent, and other uses including fuel the remaining 25 per cent. If the actual value of all these could be accounted in one mass total, the impressive income from the timber crops as a whole could be better appreciated.

Year in and year out it is quite likely that timber is the South's second crop, but its position is seriously threatened. Unlike other major crops it does not renew itself readily or swiftly. It is very questionable whether new growth today is keeping pace with drain, especially when considering the tremendous effort put forth by Southern lumbermen during the war. In this connection, timber for lumber is not to be confused with timber for pulp, in which drain does not exceed new growth.

Full appreciation of the ultimate disaster that would attend such a trend was slow in developing. From a number of directions, strenuous effort is being put forth to see to it that the South and the nation do not follow the disastrous example set by older sections of the world that are now denuded of forest growth and have to rely on the new world for supply.

The problem faced is not an easy one. While better than 50 per cent of Southern acreage still consists of woodland of one kind or another, the greatest portion is now second growth, inferior in both size and quality. State and Federal agencies,

(Continued on page 74)

NEW WAR INSTALLATIONS

	Timber and Lumber		Veneers and Plywood		Flooring and Building Materials		Total	
	No.	Cost	No.	Cost	No.	Cost	No.	Cost
Alabama	4	\$ 335,000	1	\$ 38,000			5	\$ 374,000
Arkansas	5	1,065,000*			1	\$ 36,000	6	1,101,000
Florida	2	267,000†	1	45,000			3	312,000
Georgia	3	203,000	2	98,000			5	301,000
Kentucky	3	96,000	1	49,000	1	25,000	5	170,000
Louisiana	4	402,000	3	98,000			7	500,000
Maryland	1	64,000	2	93,000	1	30,000	4	187,000
Mississippi	1	201,000	1	74,000			2	275,000
Missouri			1	55,000	1	20,000	2	84,000
North Carolina ..	2	57,000	1	69,000			3	126,000
South Carolina ..	3	219,000	2	266,000			5	485,000
Tennessee	1	70,000	2	86,000			3	156,000
Texas	3	156,000					3	156,000
Virginia	2	307,000‡			1	30,000	3	337,000
South	34	\$3,146,000	17	\$971,000	5	\$156,000	56	\$4,567,000

* Includes \$35,000 cooperage plant. † Includes \$225,000 corkwood plant.

‡ Includes \$25,000 cooperage plant.



Above—New Palatka, Fla. plant of Hudson Pulp and Paper Co., which is ready to start producing 200 tons of high grade kraft, wrapping, gumming and bag paper a day, as well as carry on conversion operations. The mill is equipped with a 234-inch Fourdrinier machine.

New Florida Plant to Make 200 Tons of Paper Daily

HUDSON Pulp and Paper Corporation's new plant at Palatka, Fla., is now ready to start operations with facilities capable of daily producing 200 tons of high-grade kraft, wrapping, gumming and bag paper, as well as for converting the output into finished products.

The new mill contains a high speed 234-inch Fourdrinier kraft paper machine arranged for speeds up to 1,400 feet a minute and of producing paper of from

25-pound to 110-pound basis weights.

D. G. Moon, consulting engineer of J. E. Sirmine & Co., who supervised the project from its inception, describes the fourdrinier part as being suitable for a wire 100 feet long and 234 inches wide with arrangement for installing from the tending aisle without necessity of removing the fourdrinier.

Facilities include the wood preparation and handling, digesters, wash and screen

room, refining, the paper machine, finishing and converting, a 30-foot deck, chemical recovery, power plant, office and laboratory buildings, water system, and fire, call, telephone and electrical distribution systems.

Wood handling is done with a horizontal steel conveyor, 12 by 45-foot barking drum, 88-inch, 10-knife chipper, vibrating chip screens and a Redler type conveyor and through 46-foot high by 27-foot diameter ground storage silos.

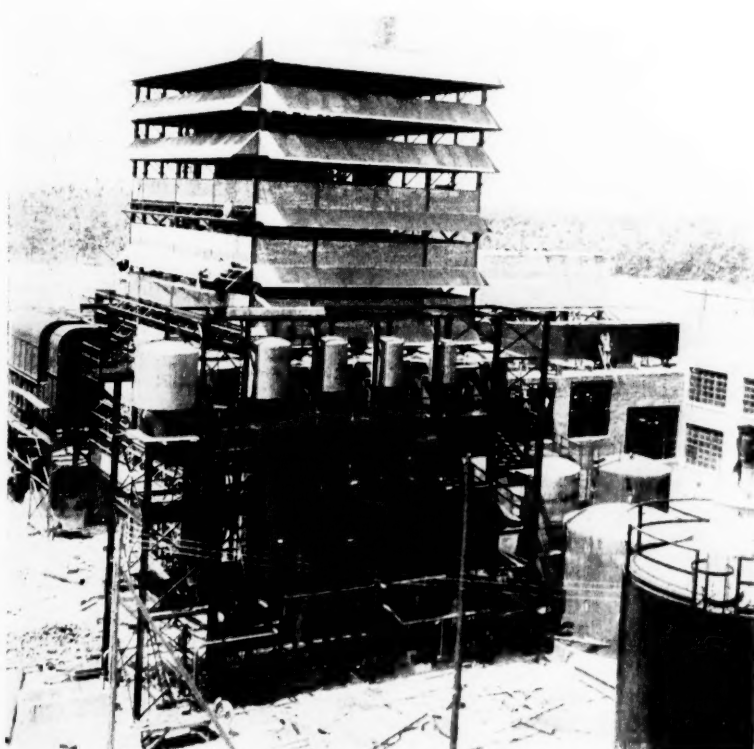
The four welded steel digesters, each having a 3,320 cubic foot or 10-ton capacity per blow, provide for cooks with a five-hour turnover. The most modern wash and screen room equipment is installed.

Seven Jordans with 300 horsepower motors operating at 450 r. p. m. are installed for preparation of the stock before it goes to the paper machine. Five of these are used for primary operations; two for finishing.

The paper machine is provided with a flow spreader with a 120-inch slice to deliver the stock in uniform consistency and velocity. Both the press part and the dryer part are made up of two sections. The driving train is fully enclosed. Two eight-roll calendar stacks follow the dryers.

A two-story building 234 feet long and 152 feet wide extends from the machine room. The first section of about 108 by 152 feet will be used for wrapping and rewinding finished rolls or for sheeting and storage. The section of the second floor ahead of the finishing room will be used as a converting plant.

(Continued on page 72)



Left—Evaporators and recovery unit at Palatka, Fla., plant of Hudson Pulp and Paper Corp.

Southern Textiles Come of Age

Trends Reveal New Apparel Plants, —End Products Bring More Profits

SEVERAL highly profitable new trends, particularly in textile production and marketing, are becoming clearly visible in the South. Some developments are deeply disturbing Eastern interests, chiefly fabrics converting and cutting industries.

Also, greater competition is being created for the East and New England as worsteds and woollens weaving moves into the South.

Furthermore, new products, processes and machines are of great but as yet not fully determined economic significance.

Meantime, qualified observers hesitate to estimate what the rosy future really holds since record increases in per capita income, along with unprecedented expansion, diversification and modernization of the highly prosperous manufacturing industries, crept up on the South so persistently during recent years.

Newly issued Commerce department data show that the eleven southeastern states' 1946 income payments of \$23,395,000,000 were 159 per cent above 1940 with a rise in per capita income from \$322 to \$801. The seven middle eastern states, neighbors, experienced a 98 per cent increase in payments for that period, while the national average increase was 123 per cent. National per capita income in 1946 at \$1,200 was 100 per cent above 1940.

Industry statisticians calculate that the South's reinvigorated weaving and

spinning industry alone is investing this year, in a three-to-five-year program, \$100,000,000 of its profits in replacement or additional machinery and facilities.

Other divisions of southern manufacturing also are spending liberally, notably chemicals, synthetic yarn, hosiery, knitwear and woodpulp industries. Power companies, under compulsion of record peacetime demand, are going ahead with several multi-million-dollar projects and are planning others.

Ample evidence emphasizes that this progress, clearly revealing new trends, not only affects the Southern states' fundamentals almost dramatically but also is influencing national finance, production and distribution.

Southern textile industry expansion and modernization is handicapped severely, however, by shortages of machinery. Ample financed manufacturers are eager to replace outworn and outmoded equipment.

Dr. W. P. Jacobs, president, American Cotton Manufacturers Association, commented lately that the problem of new equipment is "paramount" for the industry. And, the equipment producers are booked to capacity for two or three years.

Nevertheless, tremendous activity is in progress over the South in construction of new capacity and in modernization.

Strange it is, but a fact—the North and the South now are teamed for better utilization of the South's advantages. In the current surge of southern development the North is deeply involved in financing many of the more spectacular textile consolidations and physical expansions. The South still is providing thoroughly capable operating managements.

The South now seems impressed that, though it is being economically exploited, Northern capital and top management are combining commendable public relations and equitable business policies.

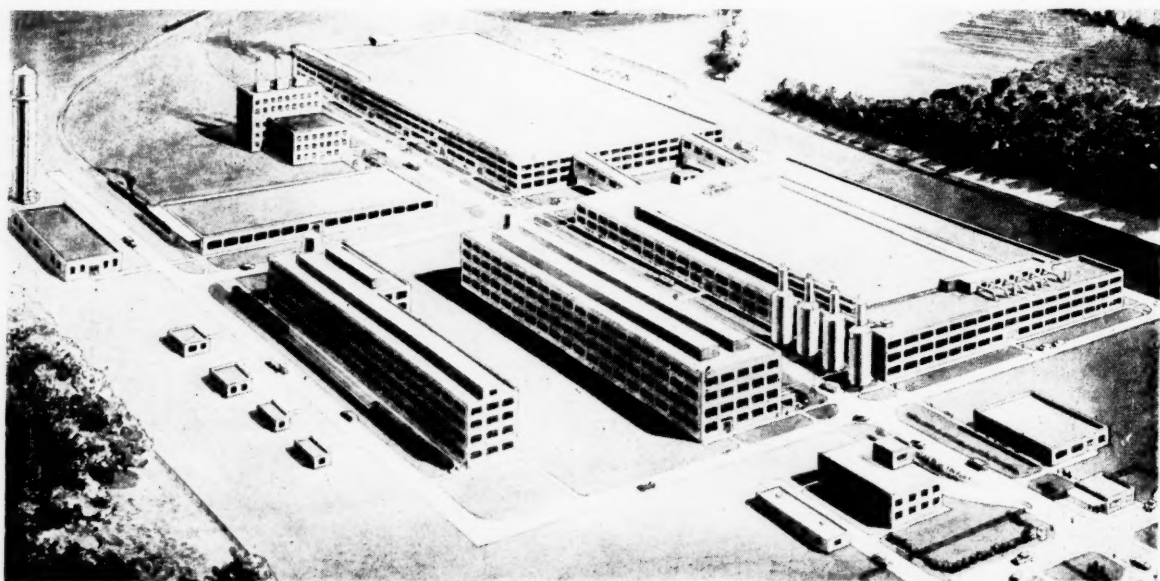
Long-time analysts of southern problems particularly are impressed that the South no longer bemoans the migration of its most capable young leadership to more promising areas of the United States. Southern management, youthful and veteran, now seem to sense that the promised land is all around them.

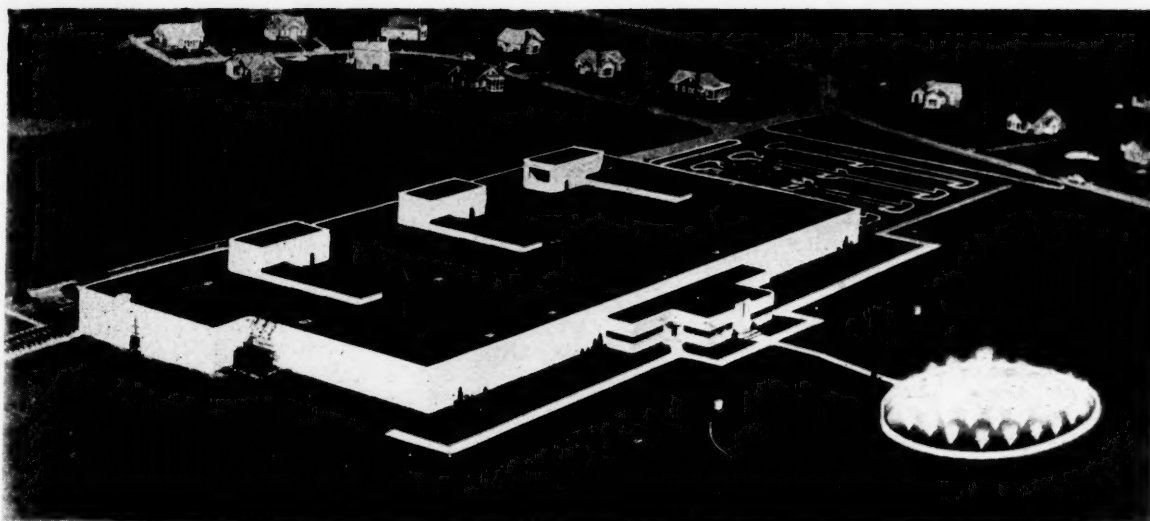
Yet, a shortage still exists in the South with respect to proven technical leadership—chiefly because modernization created needs far in excess of prospects that were apparent in the late pre-war years. So it is that the rather high rate of inflow of competent men from the North continues without abatement. These newcomers are "playing a good game" on the South's team.

This change in the economy also is changing the South's thinking—and is tending to overcome some of the region's formerly deep-rooted fears of exploitation. In this connection it is recalled vividly that less than two years ago

by
J. A. Daly

Below—\$40,000,000 cellulose acetate plant being erected at Rock Hill, S. C., by Celanese Corporation of America.





Above—Spinning mill built at McCormick, S. C., by Deering-Milliken Co., cost \$1,000,000.

southern finance and industry experienced chills of apprehension when northern capital began pouring millions into purchases of textile mills at hitherto unequalled prices.

Almost 5,000,000 of the South's 18,000,000 spindles now have been involved in integration purchases which attained their volume and value peaks last year. This capital inflow, which is continuing, has extended to industries other than textiles—but the deals in textile plants still are impressive and mostly significant of new trends.

Furthermore, thoughtful southern business is carefully evaluating new prospects created by such developments as point to new tangents in diversification and integration. For instance, there is the incipient but already clear movement of wool textile production into the Southeast.

J. P. Stevens & Co., of New York, an outstanding 1946 merger, is a leader in this new phase of southern textile development through construction of the \$6,000,000 Dublin (Ga.) Woolen Mills. First shipments of machinery are being installed, for employee training. Stevens is a big New England producer of wool fabrics; in the South, mostly cotton and rayon fabrics.

This corporation, among the biggest Carolina operators, also is removing much of the worsted machinery from a Peacedale, R. I., plant to a Rockingham, N. C., plant which was bought some months ago.

Deering, Milliken & Co., of New York, recently began producing worsteds in newly built, great plants in McCormick, S. C., and Johnston, S. C.

Celanese will complete a \$40,000,000 project at Rock Hill, S. C., a year or more hence. American Enka and E. I. duPont de Nemours each have even greater programs under way. Also, DuPont lately began construction of a \$200,000 three-story building at Charlotte to house this company's Southern sales

headquarters and a textile laboratory.

The Joanna Textile Mills of Goldville, S. C., practically has completed a \$2,150,000 expansion-modernization project. M. Lowenstein & Sons of New York is engaged in a multi-million-dollar modernization of scattered operations in the South, including a new \$800,000 project at Huntsville, Ala. A \$2,000,000 expansion added 150,000 square feet for bleaching and finishing plants of Pepperell Mfg. Co. at Opelika, Ala.

Mooresville (N. C.) Mills will complete early next year a \$2,000,000 expansion in rayon processing facilities, adding 60,000 square feet of floor area. Proximity Manufacturing Co., Greensboro announced \$1,500,000 is being spent to double jeans producing capacity of the Pineville, N. C., plant. Proximity recently bought the 12,000-spindle synthetic yarn producing Randelman (N. C.) Mills from Susquehanna Mills of New York for an unannounced price.

Full-fashioned hosiery knitting lately was started in the \$500,000 Belvedere Hosiery Co. plant at Charlotte. Mock, Judson, Voehringer Co. of Greensboro is engaged in a \$1,500,000 program to increase its hosiery output about 50 per cent.

And, it should be kept in mind that the Southeast, for many years has possessed a large, but almost static, wool goods industry. A substantial part of this capacity uses blended wool and synthetic fiber yarns in weaving operations. This phase of production rapidly is being expanded, mostly with little publicity, through post-war modernization and conversion programs at existing factories.

Furthermore, there are the diverse activities in the Carolinas of Textron, Inc. of New York. Royal Little, president, recently startled New England's wool industry when he announced a decision to progressively reduce operations of his large Nashua (N. H.) Manufacturing Co. He then somewhat cryptically commented that his company could obtain equal pro-

duction in the South at \$1,000,000 less annual direct and indirect costs.

Textron already is dealing in great volume with wholesale and retail buyers of textile finished products from subsidiary plants. This company last year bought two large groups of Carolina mills (and, in "balancing operations", subsequently sold several of them). Now, Mr. Little is going ahead slowly with the first phases of a projected large-scale establishment of specialty products sewing plants to use Textron fabrics.

First of these plants, it is disclosed, will be located at Belton, S. C., and Pickens, S. C. This is in keeping with Mr. Little's idea of placing these relatively small enterprises in Southern communities where "ample, dependable, and capable labor is available."

Emphasizing this new trend was a recent announcement that the vast Burlington Mills Corp. of Greensboro, N. C., soon will expand its distribution of its products in finished form to the women's wear, lingerie and blouse trade. The company explained that it sees the advisability of establishing more direct contact with retailers and the cutting shops.

This announcement was sensational in the intermediate converting industry.

Significant also, evidence is being given that "vertical integration" permits flexibility of textile production, thereby widely increasing net profits. Announcing in September without details a great modernization program, Reeves Brothers, Inc. of New York, operating a chain of Carolina and Georgia mills, reported that this flexibility in the past fiscal year put profits at \$3.63 per share with sales of \$49,000,000, compared with profits of \$2.82 per share in the preceding fiscal year on \$54,200,000 of sales.

This flexibility was supported by new products, volume production of most wanted staples, and new uses for "war-proven" textiles.

Another powerful new force for South—
(Continued on page 70)

PRODUCTION—

Economic Lot Sizes in Manufacturing—I

MANY products of our manufacturing industries are made in large quantities in advance of sale and stored while awaiting sale. Furniture is an excellent example, but there are many others where either the entire article or its parts are produced in this way. The purpose is, of course, to obtain the savings resulting from mass production even when the rate of sales is insufficient to warrant continuous production at a rate which is high enough to permit the lowest attainable manufacturing cost.

Increased mechanization through the use of automatic machines has been stimulated greatly by the higher wage rates of recent years, but full advantage of the cost reductions made possible by automatic machines can usually be realized only when lot sizes are large enough to minimize the so-called "unit preparation cost." In general, the more automatic the machine the lower the cost while the machine is actually producing, but the more it costs to change the machine from one product (or operation) to another.

Unfortunately the large lot sizes which permit low manufacturing costs have the very undesirable effect of causing large inventories. Industrial managers do not always realize fully what it costs to store either parts or finished products, because these costs do not ordinarily appear as such on the books. Nevertheless, in recent years there has been a growing realization that large inventories are undesirable because they increase the cost of providing storage space, they increase the amount of money required for working capital and reduce the rate of capital turnover, and they increase the danger from spoilage and obsolescence.

Because of recent great increases in the general price level, most manufacturing companies are finding it necessary to husband carefully their available capital resources. At the same time they often cannot afford to increase manufacturing costs by resorting to the very small lot sizes which would be necessary if the dollar value of inventories were maintained at the prewar level. The problem is a difficult one, and its solution requires an understanding of the economic basis of the various factors involved in the economic lot size problem.

This article is the first of a series which will discuss the economic lot size problem. The purpose of this article will be to outline the problem, to indicate how the several factors influence the main problem, to show that it is the economic range rather than the economic lot size that is important, to show that it is often desirable to reduce lot sizes below the economic lot size, and to show that the problem may be solved without resorting to mathematical formulas. Succeeding articles will contain more detailed discussions of various phases of the problem, including the derivation of an economic lot size formula which gives consideration to the rate of turnover of capital



Paul T. Norton, Jr.

and separately to both the cost of storage space and the amount of invested capital.

General Outline of the Problem

When articles are manufactured in lots in advance of sale, the larger the lot size the lower the manufacturing cost but the higher the charges resulting from the storage of the finished part or article. The optimum solution is obviously that size of lot which best combines the opposite effects of the two factors of preparation cost and storage charges.

by

Paul T. Norton, Jr.

Associate Editor

Paul T. Norton, Jr., author of this article, which is the first of a series on the subject, is professor of industrial engineering at Virginia Polytechnic Institute, to which he came from the University of Wisconsin.

A graduate of the Wisconsin institution, where he received B.S., E.E. and C.E. degrees, Professor Norton since that time has been engaged in various sales, engineering and executive capacities in private industry, as well as a year's service as chief of one of the branches of the Office of Production Research and Development of the War Production Board.

He is a member of the American Society of Mechanical Engineers, Society for Advancement of Management, American Management Association, American Academy of Political and Social Science, American Society for Engineering Education, Tau Beta Pi, Sigma Xi and Phi Kappa Phi.

Mr. Norton will welcome questions or comments from readers on this and later subjects discussed.

Many economic lot size formulas have been developed. The authors of some of these formulas have attempted to include every variable which has any effect on the general problem, with the result that such formulas are very complicated. These complicated formulas can be simplified, but no one should attempt such a simplification unless he understands the derivation of the complete formula. This would seem to limit the usefulness of these complicated formulas to those companies which are large enough to be able to employ a specialist in this particular field. There are also many very simple formulas, but unfortunately they often give results that are far from correct, because of the omission of some important factor or the improper handling of some other factor.

Formulas are often very useful in determining economic lot sizes, but as will be proved a little later in this article, the economic lot size can be determined just as satisfactorily by tabular or graphical methods. Formulas undoubtedly save time in the routine solution of a large number of similar problems, but they have the serious disadvantage of merely giving a single value, the economic lot size, without giving any information as to what the result would be if some other lot size were used. As will be shown later, there is generally a rather wide economic range of lot sizes in which there is not much increase in total unit charges. Tabular and graphical methods not only give the economic lot size but also show the effect on total unit charges of any deviation from the economic lot size. Both methods may often be employed to advantage by first using a formula to find the economic lot size and then using a tabular method to determine the total unit charges for various lot sizes at and near the economic lot size.

The Three Principal Factors

It is obvious that the manufacturing cost of an article, by conventional cost accounting methods, may be divided into two parts: first, the preparation cost, including the cost of setting up machines and any other cost which is incurred once for each lot and which is independent of the number of pieces in the lot; second, the cost for labor, material and factory overhead expense after the machine is actually in production.

It is obvious also that the total preparation cost per lot is the same no matter what the lot size may be, and that the preparation cost per piece varies inversely with the number of pieces in the lot. While all such costs are not usually included in manufacturing costs by conventional cost accounting methods, it is desirable, in economic lot size studies, to include in the total preparation cost any costs in the office which may be incurred in the preparation of the manufacturing order, including the preparation of the

route sheets and other similar papers, as well as the expense of charging off materials on the materials ledgers.

In general, the cost per piece for labor, material and factory overhead expense, after the machine is once in production, should be a constant. In other words, if the lot size is doubled, the amount of material for the lot, and the labor and factory overhead expense for the lot, will all be doubled.

Many quite different methods are used in determining at what time the investment represented by the labor, material and factory overhead expense should be charged to the lot, and in determining the storage costs, but in all cases it can be proved that the total charges per piece incident to storage vary directly with the number of pieces in the lot. (The proof will be given in a later article of this series.) In other words, if the lot size is doubled, the charges per piece incident to storage will be doubled.

A Typical Example

The following typical example will illustrate a tabular method for determining both the economic lot size and the economic range. A graphical solution of the same example will also be given. The following symbols will be used:

- Q = the lot size (pieces per lot)
- Q_e = the economic lot size (pieces per lot)
- S = total preparation cost per lot (dollars)
- C = material, direct labor, and factory overhead expense per piece (dollars)
- K = a constant which when multiplied by Q gives the charges per piece incident to storage (dollars)
- V = total charges per piece (dollars) = $\frac{S}{Q} + C + KQ$

In this particular example the values of the constants are \$10.00 for S, \$0.10 for C, and \$0.0000041 for K. With these values, the several unit charges at various lot sizes are as shown in Table I. In this table the values are given in cents instead of in dollars for the sake of convenience.

Table I shows that the lowest total unit charges amount to \$0.10404 at the economic lot size of 4940 pieces; also that at the economic lot size the unit preparation cost and the unit charges incident to storage are equal. This latter point is very significant, as it enables one to determine the economic lot size merely by increasing or decreasing the lot size until the unit preparation cost becomes equal to the unit charges incident to storage.

TABLE I

Q (pieces)	$\frac{S}{Q}$ (cents)	C (cents)	KQ (cents)	V (cents)
1000	1.030	10	0.011	11.041
2000	0.515	10	0.022	10.537
3000	0.343	10	0.033	10.416
4000	0.258	10	0.044	10.414
4500	0.222	10	0.184	10.406
4940	0.202	10	0.202	10.404
5500	0.182	10	0.225	10.407
6000	0.167	10	0.246	10.413
7000	0.143	10	0.287	10.430
8000	0.125	10	0.328	10.453

The information in Table I shows that the total unit charges remain practically constant for lot sizes between 4500 pieces and 5500 pieces; also that for any lot size between 3000 pieces and 8000 pieces the total unit charges would not be more than about one-half of one per cent greater than at the economic lot size of 4940 pieces. It is seldom, if ever, desirable to use lot sizes greater than the economic lot size, but there are often good reasons

for reducing the lot size below the economic lot size. For example, because of the fact that the average amount of money invested in the goods in storage varies directly with the lot size, it would be possible in this particular example to reduce the average investment by 40 per cent without increasing the total unit charges by more than about one-half of one per cent. This is very important to companies with insufficient working capital.

The solid lines in Figure 1 show graphically the values of Table I, with the exception that the values for C have not been plotted in order that the other values might be drawn to a larger scale. It is obvious that the omission of C does not in any way change the information that is given in Figure 1. It will be noted that lines $\frac{S}{Q}$ and KQ cross at the economic lot size of 4940 pieces, proving graphically that these two factors are equal at the economic lot size.

Figure 1 shows graphically that the curve for total unit charges is quite flat

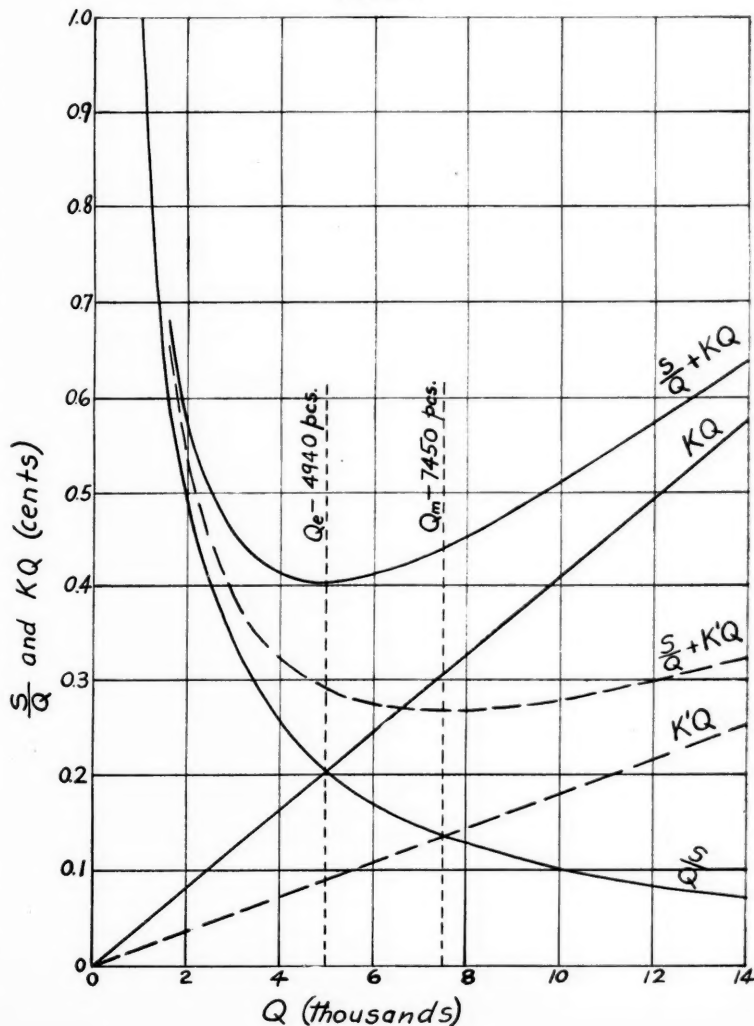
for lot sizes near the economic lot size, but that the total unit charges increase rapidly for lot sizes outside the economic range within which there is little difference between total unit charges. It is because of this peculiarity of the economic lot size problem that solutions by tabular or graphical methods are superior to the usual methods which merely employ a formula.

Rate of Return on Investment in Goods in Storage

Most economic lot size formulas make a charge against money invested in goods in storage but they generally do so at simple interest rates, which are supposed to cover merely the cost of borrowed capital. It is obvious that no businessman would borrow money for investment in inventories if the best return he could hope to get was merely the interest he would have to pay on borrowed capital. The method which has been used in the example of this article takes care of risk and of turnover of invested capital by making a charge against the investment

(Continued on page 68)

FIGURE 1





Above—Thirteen ocean-going vessels load and discharge cargoes along the Turning Basin end of the Houston Ship Channel, which extends 34 feet deep for 50 miles to the open water of the Gulf of Mexico.

Houston, Third Ranking U. S. Deep Sea Port, Launches \$9,000,000 Improvement Program

HOUSTON, which last year moved back into its pre-war berth as third-ranking deep-sea port in the nation in total tonnage handled, is making a strong bid for a still larger share of increased post-war trade.

A \$9,000,000 three-year port improvement program has been launched to provide not only additional port facilities of a varied nature but also to provide a more diversified and economically operating layout. When the program is completed, the Port of Houston will have berthing facilities for 80 vessels.

The people of the Houston area placed their stamp of approval on the program on August 23 when they voted a \$2,500,000 in port improvement bonds as a part of the overall program. Already, from other funds on hand, more than \$2,000,000 in improvements are underway or under contract.

The Port of Houston in 1946 handled 31,837,458 tons of cargo to establish an all-time record and regain its position as the nation's third ranking deep-sea port, the position it held prior to govern-

ment control of shipping during the war.

"The improvement program underway will help maintain Houston's position among the ports of the nation and will provide Port Houston with more adequate and efficient facilities for increasing commerce still further," Col. Wilson G. Saville, chairman of the Houston-Harris County Navigation District, commented.

Located 50 miles from the sea at the head of the man-made Houston Ship Channel, Port Houston is the realization of a dream—a dream to establish a deep water port miles away from the Gulf of Mexico. Since the opening of the port to world commerce in 1915, Houston has become not only the largest city in Texas, but the largest industrial city in the Southwest.

Port Houston has grown from a vision to the world's leading port for shipments of petroleum and petroleum products, cotton, rice, and carbon black.

Along the Ship Channel have sprung up great industries in which are invested a third of a billion dollars. Massive fac-

ories, huge refineries, plants of various kinds—more than 100 major industries have space and docks along the 25 miles near Houston.

The refineries along this stretch of the channel are making nearly half a million barrels of gasoline and other petroleum products daily, one-tenth of all the refining done in the United States. There are also great synthetic rubber factories making one-eighth of all the copolymer synthetic rubber output in the United States.

There is a giant steel plant, a huge paper mill, shipyards and factories of almost every kind. At the inland end of the channel near the Turning Basin there can be seen the towering public grain elevators.

Houston's position as top cotton port is in evidence in the massive warehouses and sprawling docks through which this product passes.

But Port Houston is still growing, still on the way to better things. Having regained her leading position among the nation's deep water ports during the ris-

(Continued on page 64)



Above—Big 44-passenger Delta DC-4 prepares to take off from the Atlanta municipal airport where the company makes its headquarters.

Delta Air Lines --- Visibility Unlimited

by
John Mebane

OUT at Delta Air Lines' headquarters at Atlanta's Municipal Airport a husky individual whose eyes with their faraway look belie the vigorous dynamo that makes him tick will tell you that Delta is on the verge of completing a million-dollar expansion program. He is C. E. Woolman, president of the line that started out as the world's first air crop-dusting service and today has become one of the nation's major commercial airlines.

For C. E. Woolman that expansion is but another step in Delta's steady march of progress. The faraway look in the man's eyes means greater developments still in the offing. He comments, matter-of-factly: "The surface of aviation has just been scratched."

President Woolman, whose keen mind today guides so surely the destinies of Delta, grew up with planes. More than three decades ago, as a graduate of the University of Illinois, he foresaw the amazing future of aviation. Today, with that "future" of 30 years ago realized, his vision of things to come is brighter than ever. Still more progress? He answers that question succinctly: "We have just started to grow."

Only recently Delta announced the private sale of 100,000 shares of common stock at a total price of \$2,200,000, funds from which will be used to increase its working capital in connection with its broad expansion and continuing growth. This sale, it is interesting to note, was handled by Courts and Company, Atlanta investment brokers, and resulted in Delta

having 500,000 shares of stock outstanding, with an authorized capitalization of 1,000,000 shares.

In line with its expansion, Delta has just elected four new directors—all men of prominence. One of them, R. W. Freeman, of New Orleans, is president and director of the Louisiana Coca-Cola Bottling Company. A graduate of Tulane University, Mr. Freeman long has been active in his state's civic affairs. A sec-

ond new director is Richard J. Reynolds, of Winston-Salem, N. C., son of the founder of the mammoth R. J. Reynolds Tobacco Company, a former mayor of Winston-Salem, and the 1941 treasurer of the Democratic National Committee. A World War II veteran, Mr. Reynolds served as intelligence officer on the U. S. Aircraft Carrier Sangamon and later as navigation officer of the Aircraft Carrier U.S.S. Makin Island.

Third of the new directors is Winship Nunnally, of Atlanta, who was president of the Nunnally Candy Company from 1920 to 1940 and now a director of the Coca-Cola Company, a director and member of the executive committee of the Trust Company of Georgia and a director of the Columbus Transportation Company. Last of the new directors is Edward H. Gerry, of New York City, formerly with the Central Hanover Bank and Trust Company and now associated with Gerry Estates, a real estate corporation. He served as a major with the Army Air Forces in World War II.

Those new directors were added, Mr. Woolman said, because of "a general expansion of the company, with further extensions in sight."

Recently Delta's request for extension of its route to include an Atlanta-to-New York flight won approval of examiners appointed by the Civil Aeronautics Board to consider the proposal's merits. Delta is constantly seeking to expand its services, and its broadening field since its organization has been a remarkable achievement.

(Continued on page 66)

C. E. Woolman



The South's Growing Labor Supply

**Growth is Faster than in Rest of Nation—
and Southern Labor, always Loyal,
is rapidly Becoming More Skilled**

by
Caldwell R. Walker

ACCORDING to compilations now under way for the 1948 edition of *Blue Book of Southern Progress*, the 16 Southern states combined now have a labor force totaling 19,801,000 persons. This number constitutes between 33 and 34 per cent of the labor pool of the nation, estimated to be 58,978,000 persons.

The present ratio to the national total is the highest the South has ever enjoyed. The 1940 census, by actual count showed the same 16 Southern states to have had in that year a labor force of 17,763,000 persons, in comparison with a total for the country of 54,778,000. In that year the South represented 32.4 per cent of the national pool.

The natural growth of the labor force in the South is higher than for any other section of the country. According to records of the U. S. Bureau of Labor Statistics, the natural rate of growth in the United States is about 11 per cent per decade; for the South 18 per cent; for the North 8 per cent; for the West 6 per cent.

Migration from the South to other regions in past years has served to hold the Southern labor pool considerably below its natural ratio. This tendency was very noticeable in years prior to 1940, but at a relatively lower rate each consecutive year. However, dislocation of industry in the early war years accelerated the tendency for Southerners to seek opportunity in other fields. From 1940 to 1943 some Southern states actually saw their labor pools diminished despite their rapid rate of natural growth. Consolidation of figures submitted by various state and federal agencies indicates that the South sustained a net loss of something over 400,000 employable persons through migration in the years 1941, 1942, and 1943. While no definite count for other than selected areas has been available since 1943, other records including those on employment and production give reliable evidence that the out-migratory trend ceased with 1943, and that thereafter the Southern labor pool accumulated according to its natural rate of growth. After allowing for losses incurred during those first three years of war, a realistic approach to the actual labor pools existing in each state is obtainable:

In the early years of the war, labor pool losses through migration were sustained by Alabama, Arkansas, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and West Virginia. Gains through migration accrued to District of Columbia, Florida, Maryland, and Virginia. Net loss aggre-

SOUTH'S LABOR FORCE

	(Thousands of persons)							
	1940	1941	1942	1943	1944	1945	1946	1947
Alabama	1,058	1,067	1,076	1,084	1,108	1,132	1,156	1,180
Arkansas	704	696	688	680	692	704	716	728
District of Columbia	378	385	412	470	450	460	470	480
Florida	818	862	907	952	972	992	1,012	1,032
Georgia	1,277	1,289	1,300	1,311	1,341	1,371	1,401	1,431
Kentucky	1,037	1,031	1,024	1,017	1,035	1,053	1,071	1,089
Louisiana	919	933	946	959	975	991	1,007	1,023
Maryland	797	826	856	886	904	1,002	1,010	1,018
Mississippi	841	837	833	828	814	860	876	892
Missouri	1,579	1,575	1,571	1,576	1,587	1,598	1,609	1,620
North Carolina	1,388	1,394	1,400	1,405	1,439	1,473	1,507	1,541
Oklahoma	834	822	809	796	810	824	838	852
South Carolina	763	765	767	768	788	808	828	848
Tennessee	1,114	1,124	1,134	1,143	1,162	1,181	1,200	1,219
Texas	2,547	2,586	2,625	2,664	2,705	2,746	2,787	2,828
Virginia	1,072	1,126	1,181	1,236	1,254	1,272	1,290	1,308
West Virginia	657	658	659	660	673	686	699	712
South	17,763	17,976	18,288	18,505	18,829	19,153	19,477	19,801

gated nearly half a million employables. Notwithstanding this handicap, the period 1940-1947 saw the South emerge at the end with a higher ratio than at the beginning.

Recent checks by the Bureau of the Census show that the gain thus made has been consolidated with industrial growth. The entire labor force of the South today enjoys employment fully comparable with the rest of the country. Altogether, 11 surveys were made in the South by the Census Bureau, out of 34 for the entire country.

The results of this survey not only confirm the indication of full rate natural growth of the labor force in the South, but go further and show that Southern industry is expanding commensurately and absorbing the new additions as fast as they are accumulated. This is the more noteworthy from the standpoint that mechanization of Southern agriculture is

steadily releasing employables from that field. That those so released are being absorbed by new and expanding industry in the South is evident from the favorable rate of employment in the South compared with the rest of the country.

Except for three urban communities, Akron, Ohio; Toledo, Ohio; and Minneapolis-St. Paul, Minn.; urban communities in the South are currently running lower in percentage of unemployment than other communities of the nation. When it is considered that the nation's three leading communities in this respect are unquestionably stimulated beyond normal activity by war occasioned shortages of goods, the prospect of the South's imminent capture of full employment leadership looms very bright.

Projecting the present ratios and relationships from 1947 on into 1950 further strengthens the likelihood that the South

(Continued on page 66)

SOUTHERN COMMUNITIES SERVED

Area Surveyed	Population		Labor Force		Per Cent Unemployed	
	14 years old and over	1940	1947	1940	1947	1940
Birmingham	378,366	311,375	209,304	165,478	4	16
Washington	938,948	734,049	587,664	442,973	4	9
Atlanta	386,917	348,749	234,151	203,805	2	12
New Orleans	476,040	427,975	258,608	236,164	6	19
Baltimore	1,012,387	836,498	591,632	462,333	5	10
St. Louis	1,247,400	1,103,693	716,408	606,803	4	15
Tulsa	162,498	147,554	90,321	79,701	4	13
Memphis	313,720	265,383	187,581	154,313	5	14
Dallas	367,400	302,199	215,116	176,287	3	12
San Antonio	300,084	231,624	159,766	118,036	5	18
Norfolk	335,862	245,876	183,864	123,176	5	10
Surveyed in South ..	5,971,674	4,954,973	3,434,415	2,779,069	4.3	13
Surveyed in Nation ..	42,689,812	39,547,629	24,723,356	21,335,889	6	16

Finished Products Story of the Month

Southerners Recognize Business Opportunities



Above—Tanks for shipment to all parts of the country from the plant of Birmingham Tank Co., Birmingham, Ala., which uses fabricated steel from Ingalls Iron Works.

NUMBERLESS examples of keen and growing acumen on the part of Southerners in recognizing business opportunities right in their own back yards pass across the news desk of the *Record* in continuous stream.

It would be a physical impossibility to recount all these disclosures in entirety, but some contain elements of considerable general interest aside from the industrial development they indicate.

Among such is the story of the Swisher Creamery in Swisher County, Texas. Now, it may be said that there is nothing startling about a creamery, especially in Texas where milk and cream and beef and all the other offerings of the bovine tribe are to be found in abundance.

However, this Swisher creamery is different. They make cheese there, and cheese is something that most Southerners have cast for far and wide, mainly in Wisconsin.

Another interesting feature is that Henry Teubel, founder and president of the firm had no misgivings about supplies or market. He knew from the start that Texas had the stuff both on the delivering and receiving ends to make the business a success. The result is that he gets all his materials at home and sells every pound (better than a million a year), as he says, "right here in Texas."

The operation employs a substantial force of workers, operates a large fleet of trucks, partly refrigerated, and delivers its product over a wide area of the state. The milk of over 500 farms is taken by the company's own trucks, and 5,000 other farmers are served through means of buying stations.

Besides cheese, the Swisher Creamery also turns out all other types of dairy products, and during the war furnished the Army and Navy with over five million pounds of creamery butter, a portion of which was used overseas.

Not too far away from the Swisher

plant is another, founded and based on the same principle—Southern products from start to finish. Ever hear of the Logger's Dream? Well, it's more than a dream. It is an automatic logging device that replaced in a Mississippi logging operation equipment that up to then had been considered the ultimate in efficiency.

To tell the story as it came; some ten years ago a Louisville, Miss., sawmill operator, Henry Cornish, decided that the best was not good enough. He consulted Alex Taylor, then operator of a small contract machine shop in Louisville. Mr. Taylor thought it over and came up with an answer. When the new machine he devised made its bow in the logging camp, one oldtimer allowed, "this machine is the answer to a logger's dream." Thenceforth Taylor Machine Works of Louisville, Miss., was launched on an enterprise that today has made it a model of industrial architecture and efficiency—as one observer has remarked, "a monument of concrete and steel to Southern enterprising genius."

Step now to the other end of the South—to Sebastian, Florida. Everyone fully recognizes the outstanding advance science has accorded civilization in the development of the quickfreezing process. Not everyone, however, has come up with an idea for making it work.

The founders of Melver, Inc., have an idea and are making it work. Says Standish F. Crippen, general manager of the concern: "We are now quickfreezing a wide variety of seafoods, including scallops, shrimp, lobsters, crabmeat, and frog legs. We are the largest producers of frog legs in the United States."

As though thinking along the same lines with the Melver executives, the Higgins Industrial Canal Plant of Higgins, Inc., New Orleans, La., announces that it has devised and put into operation a new and revolutionary refrigerated fishing boat.

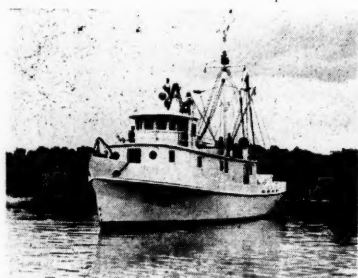
Heretofore, fishing boats have had to depend upon ice for preservation of the catch, and have been able to stay out only so long as the ice held out. Even then, many a catch has been lost before dock could be reached by reason of ice failure.

This new Higgins boat is provided with deck boxes cooled by refrigerated coils, into which the catch is immediately dumped. For later processing it has a quickfreeze room where the seafood is frozen by a blast air method that circulates sub-zero air over and around it. The fish remain frozen until ready for use in the family kitchen.

The new boat was designed primarily to fit the needs of the Gulf Frozen Shrimp Company of New Orleans, which indicates that this company also is by no means devoid of new ideas.

Examples of growth are practically as interesting as examples of ingenuity.

(Continued on page 55)



Above—Higgins Refrigerated Boat

Below—Servis Bale Drop Trailer



Southerners at Work

SASI Trustee

Carl B. Fritsche, of Tuscaloosa, Ala., vice president and manager of the plastics division, Reichold Chemicals, Inc., has accepted appointment to the board of trustees of the Southern Association of Science and Industry. It is announced by Homer M. Pace, of Charleston, president of SASI.

The association, whose objectives include the improvement of scientific training in southern educational institutions and the stimulation of research and its application to the conversion of resources, has recently inaugurated active south-wide programs of agriculture, forestry and education.

A member of many scientific societies, Mr. Fritsche has long been active in SASI affairs. He was joint builder of the world's first successful all-metal dirigible for the U. S. Navy in 1929 and is president of the Metalead Airship Corp.

Other SASI trustees from Alabama include Dr. George D. Palmer, professor of Organic Chemistry, University of Alabama, who is secretary of SASI; Dean S. J. Lloyd, school of Chemistry, Metallurgy and Ceramics, University of Alabama; Dr. Milton H. Fries, consulting engineer, and Thomas W. Martin, president of the Alabama Power Co., both of Birmingham, and Dr. L. B. Roberts, professor of Chemistry, Huntington College, Montgomery.

West Coast Manager

Jack Green, Sales Manager of the Welding Fittings Division of Tube Turns, Inc., Louisville, Ky., has announced the appointment of Lewis M. Bound, Jr., as West Coast manager, with headquarters in San Francisco.

Mr. Bound was scheduled to assume his new duties on September 1. A native of Independence, Kansas, he attended Thayer Academy, and Purdue University. He joined Tube Turns' New York office sales staff in July 1941. During his three years in the field, he served in the Field Artillery in the European Theater.

District Manager

Because of the growing importance of the area and to provide better service to consumers in Reynolds' own "front yard," David P. Reynolds, Vice President, Reynolds Metals Company, Louisville, Ky., announces the appointment of Harry E. Weiler as manager of the Louisville District sales office serving all of Kentucky except Kenton and Campbell counties. In addition, that part of Indiana south of and including Knox, Daviess, Martin, Lawrence, Jackson, Scott, and Jefferson counties is served by this office.

Mr. Weiler brings to users of aluminum in this area an excellent technical background. After receiving a B.S. degree in engineering from Georgia Tech, he did graduate work at Northwestern University and Illinois Tech, both in Chicago.

Before coming to Reynolds Metals,

Mr. Weiler did engineering work for Tennessee Eastman Corp., Kingsport, Tenn., and sales engineering for Enterprise Wheel & Car Corp., Bristol, Va. Going then to Revere Copper & Brass, he served that company as technical advisor in Chicago, as project engineer for an aluminum tube mill at Baltimore, and as the district manager in that company's Los Angeles Office. He also developed the design for an all-magnesium truck body while with Revere.

Regional Manager

Richard M. Peterson has been appointed Southeastern Regional Manager for the radio division of Stewart-Warner Corporation, Floyd D. Masters, sales manager of the radio division, has announced. Mr. Peterson, who has been assistant advertising manager of the radio division, will make his headquarters in Atlanta, Ga.

He formerly was advertising manager of Popular Chemistry publications and was a member of the sales staff in the appliance division of A. C. McClurg & Co., Chicago.

During the war, he served as an aerial navigator with the Army Air Forces.

Sales Representative

For territory included in the states of Georgia and Alabama, Burlington Instrument Co., Burlington, Iowa, has announced the appointment of Woodman, Rayfield & Potter Co., as representatives to handle Burlington electrical indicating instruments, generator voltage regulators, automatic synchronizers, and other electrical control equipment. Headquarters of the distributing firm are at 1570 Northside Drive, N.W., Atlanta, Ga.

Petroleum Council Appointee

Ardon B. Judd, Houston, Tex., president, Petroleum Equipment Suppliers Association and vice president and general manager, Republic Supply Co., has been appointed as a member of the National Petroleum Council, according to announcement from the U. S. Department of the Interior. The Council was created by the Secretary of the Interior to advise the federal government on oil and gas problems, and is composed of outstanding representatives in the field.

Sales Representative

Fred E. Uhl, former sales engineer for Westinghouse Electric Co. in New York City, has been appointed by the Dust and Fume Control Division of American Wheelabrator & Equipment Corp., Mishawaka, Ind., as district sales representative with offices in Baltimore, Md. Mr. Uhl succeeds Troy T. Alverson, who has been promoted from the Baltimore District post to the position of assistant manager, headquarters Mishawaka. Before joining Wheelabrator, Mr. Alverson was assistant to the factory superintendent, Glenn L. Martin Co., Baltimore. Prior to service with Glenn L. Martin, he was

president and general manager of Maryland Sanitary Mfg. Co. and general superintendent of the Crane Company's Chattanooga, Tenn., plant.

Port Authority Aide

The State Port Authority of Virginia, through its director, H. V. C. Wade, announces the appointment of Lloyd L. Sackriter as foreign freight representative who is to represent the Virginia ports in the New York area.

The State Port Authority has been, since the termination of the war, actively traveling men in the trade territories for the purpose of building up tonnage through the Virginia ports, both in the New York area and through the central west. This is a resumption of work which the Authority engaged in for many years prior to the beginning of the war.

Mr. Sackriter, who has for some years been with the Norfolk Port-Traffic Commission, and prior thereto, in railroad and industrial life, has been engaged in the Hampton Roads area for some 25 years, and succeeds Macon C. Sammons who resigned to engage in private business. Robert L. Nelligar is commerce agent for the Authority and works the central western area.

Trade Unit Elects Officers

At the annual meeting of the board of governors of Dow-Chemical and Allied Trades Association of St. Louis, Mo., the following officers were elected for the ensuing year: President, Horton Oliver, branch manager of the Tilden Co.; first vice president, Edward H. Baltzer, general manager of McKesson & Robbins-Merrell Division; second vice president, R. Sidney Herman, secretary and general manager, The Dr. J. H. McLean Medicine Co.; and secretary-treasurer, Robert R. Rosenthal, vice president, Superior Folding Box Co., all of St. Louis.

Devens to Start New Business

Lawrence Devens, 5028 Osage Ave., Philadelphia 43, Pa., announces that he has disposed of his interests in Venite Co., Inc., and Venite Floor Co., and that he will shortly announce the establishment of a new business. Mr. Devens was a charter organizer of the two Venite companies.

Pipeline Facilities Augmented

Construction and operation of new facilities, practically all originating in the South, to increase the nation's natural gas pipeline systems by nearly two billion cubic feet daily were authorized between July 1, 1946, and June 30, 1947, according to the Federal Power Commission.

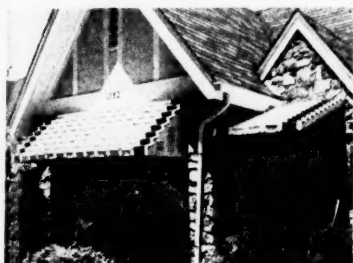
Cost of facilities authorized was estimated at \$237 million, of which \$257 million was for projects costing \$700,000 or more each.

The huge demand for natural gas since the end of the war has been attributed to the fuel's recognized advantages, along with the development of modern heating devices.

In all, 132 certificates of public convenience were issued, involving pipeline construction of 5,369 miles, with additional potential of 360,349 horsepower.

New Products

Aluminum Awning



Perma-Shade Aluminum Awning

A novel development in awning construction is announced by Skaggs Manufacturing Co., Inc., 3880 Jackson Ave., Memphis, Tenn. The new product, known as Perma-Shade, is made of aluminum, an invention developed by C. M. Skaggs, president of the company. Franchise and territorial rights for the product are now being offered, Mr. Skaggs reports. The inventor points out that the awning reflects, and does not hold heat, a well known quality of aluminum. At the same time it permits more light than other types of permanent awnings by reason of light reflection through louvers. A large number of installations have already been made on Memphis buildings.

Fishing with Rubber

One million fish can be unloaded from a boat in less than two hours by means of a new vacuum hose developed by United States Rubber Company that sucks up the fish and sends them speeding to storage bins 1,500 feet away.

The new unloading system is being used by the Consolidated Fisheries, Lewes, Del., to handle menhaden fish.

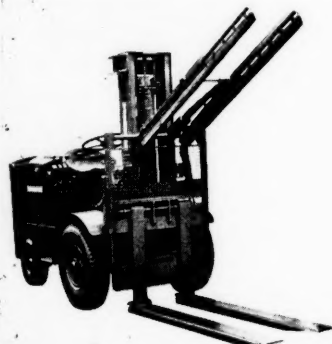
The fish are drawn into the hose under high vacuum by a large pump located on the dock. Oil extracted from menhaden fish is used for soap manufacturing and pharmaceuticals. Fish scrap is used for fish meal and fertilizers.

Lift-Truck Clamp-Arm

A new clamp arm accessory for fork lift trucks, which prevents shifting or slipping of large, "flat" loads while being transported or stacked, has been developed by engineers of the Towmotor Corp., 1226 East 152nd St., Cleveland 10, Ohio. Originally designed for handling loads of barrel staves for a large cooperage company, the new attachment is usable in other industries in which loads of this type are handled.

The attachment consists of a set of clamp arms which are hydraulically operated to grip the load. The action is controlled by means of a valve adjacent to the operator. Both arms are equipped with a layer of sponge rubber along the bottom edge which assures a positive, firm grip without the possibility of marring or otherwise damaging the materials being handled.

Towmotor Fork Lift Truck



Modern Plywood

Putting its latest development in plywood construction to practical use, U. S. Mengel Plywoods, Inc., New Orleans, La., is making use of its own material to a large extent in expansion of its New Orleans distribution unit. Interior of the office part of the structure is being built to become a show place of modern weldwood plywood construction and design. The new building is reported in the last stages of construction. Headquarters of U. S. Mengel are in Louisville, Ky.

Wrinkle Resister

Another in a long series of technological discoveries has been reported from the Danville, Va., laboratory of Dan River Mills. Latest disclosure is development of a chemical treatment for garment fabrics and other textiles which makes the material wrinkle resistant. Announced by George S. Harris, president of Dan River Mills, the process was developed after four years of intensive research. For the last two years, the work was conducted in collaboration with the Monsanto Chemical Company. Basis of the finish is Monsanto's "Resloom," a synthetic resin formula which previously has been applied successfully to woolen fabrics so as to make them washable. The announcement was the first that "Resloom" had been applied successfully to cotton to achieve a wrinkle-resistant finish.

Harris said that test runs with several hundred thousands of yards of cotton fabrics were made before a successful method of application was achieved. The tests were made under varying degrees of temperature and tensions. Fabrics tested included cotton chambrays, gingham, Gordon Plaid shirtings and cotton tweeds.

Water-Proof Paper

A Virginia manufacturer is among a number of companies now producing new water-proof paper reinforced with fiberglass yarns. Albemarle Paper Co., Richmond, Va., after cooperative development activities carried on jointly with Owens-Corning Fiberglass Corp., Toledo, Ohio, has adopted the process by which the glass yarns are laid parallel to one another, or in a diamond pattern, between two sheets of kraft paper. The combination is treated with asphalt for waterproofing and to effect bonding quality. Because glass does not absorb moisture, the yarns prevent transmission of vapor transversely between the paper components of the sheet. The small diameter of the glass yarn also permits a tight bond between the two paper sheets. The result is a smooth, flexible paper with high tensile strength and moisture resistance.

Corrosion Resistant Pipe

Announcement of the development of a new type of corrosion resistant pipe and fittings is made by the plastics division of The Dow Chemical Co. The company will fabricate the new pipe at its Midland, Mich., plant.

The product, Saran-lined steel pipe designed to convey corrosive liquids, combines the features of steel pipe—rigidity and pressure strength—with Saran's extreme resistance to chemicals.

Main use of the pipe is in manufacturing chemicals, and in plants such as pulp, paper and textile; metal treating and metal plating, where manufacturing methods necessitate handling highly corrosive chemicals, particularly acids.

Building Ventilator

The Wind-Way Ventilator, a product recently announced by Wind-Way Fan and Ventilator Co., 531 St. Joseph St., New Orleans, La., is described as a device that can put fresh air in any part of a home, office, or industrial plant. It is recommended by its makers as especially effective for removing stale, foul, hot air, smoke, steam, dust, odors, vapors, and fumes from any interior. Already it claims widespread use in the South. Among listed users are Ed Martin Seafood Co., Westwego, La., Pepsi-Cola Bottling Co., New Orleans, Godeaux Sugars, Inc., Raceland, La., Seacoast Packing Co., Biloxi, Miss., St. Charles Dairy, New Orleans, Municipal Light and Power Plant, Thibodaux, La., White Kitchen Restaurant, Slidell, La., Southcoast Georgia Sugar Refinery, Matthews, La., Klotzback Bakery, Independence, La. Named as an important factor of its effectiveness, is its "no back pressure" feature enabling it to work efficiently against wind pressure. The motor is completely enclosed.

Brake Lining Adhesive

A new adhesive that has more than twice the shear-resistance strength of brass rivets in anchoring automotive brake linings and eliminates all danger of rivet-scoring of brake drums has been developed by The B. F. Goodrich Co., Akron, O., in collaboration with one of the country's major auto concerns.

The material, which is "entirely synthetic," will be used starting this fall in brakes of the commercial vehicles of the automotive manufacturer, and ultimately in its passenger cars, the announcement said. The formula, and even the basic ingredient, are still secret.

Two chief advantages of the adhesive, called Plastilock 601, over the conventional method of attaching brake lining by rivets, according to J. E. Thomas of The B. F. Goodrich Co., are (1) the brake lining can be worn "right down to the shoe" before need for replacing, instead of only about half way, and (2) there is no possibility of rivet heads cutting ridges in the brake drum.

Uniform Pallet

Initial production of a new eight-way all-steel pallet in a single size, 40 x 48 inches, has been announced by the Monroe Auto Equipment Co., Monroe, Mich.

It is explained that, side by side, using the 40 inch dimension, the pallets fit precisely on the bed of a truck or trailer, and, side by side, using the 48 inch dimension, they fit snugly into a freight car.

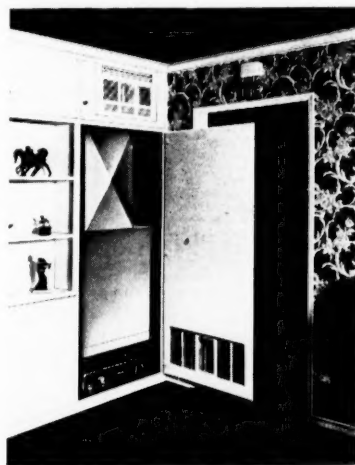
The new pallet is designed to permit the forks of a lift or pallet truck to be slipped between the top and bottom sections from eight different directions, four sides and four corners. As a result there is no lost motion in maneuvering the truck for proper lifting position in crowded factories, warehouses, assembly and conveyor line operations, and in loading and unloading freight cars, trucks and trailers. The pallet is constructed of high tensile steel.

Heating System

Among post-war improvements in the housing field to get into practical use is the "Royal Jet-Flow" made by Royal Heaters, Inc., 1024 Westminster Ave., Alhambra, Calif.

The "Royal Jet-Flow," a new heating device, incorporates a number of advantages heretofore out of range of low-budget home builders.

Without using blowers or fans, it forces out warm air at a velocity of approximately 250



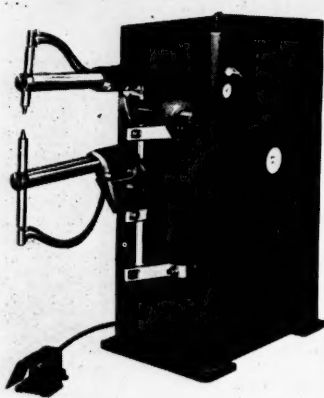
Royal "Jet Flow"

feet per minute, providing a uniformity of heat throughout the living space of a house.

Independent laboratory tests, conducted in a five-room house with controlled outside temperatures of 32°, showed a maximum room-to-room temperature differential of four degrees at a height of 60 inches.

Distribution of heat is achieved by delivering hot air in two or three directions just below ceiling level, and at the same time drawing cold air from the floor—thus setting up a circulation that keeps air moving throughout the entire house.

Spot Welder



Banner Spot Welder

Announcement is made of a newly designed 50KVA spot welder by Banner Products Co., 4602 N. 29th St., Milwaukee 9, Wis. The model is made for foot or air operation and used with either 220 or 440 volt, 90 cycle current. 30KVA models are also available.

The 50KVA contains such features as eight ranges of heat selection with easy to reach external adjustment, water cooled transformer and high conduction, high strength current-carrying castings.

On long production runs where repeat operation is used the free action of welder and low inertia of rocker arm enable operator to positively space spots to produce a clean, uniform job. Unit is adaptable to a variety of jobs, and lends itself to both the job shop and the highly geared assembly line.

Tiny Electron Tube

A radio tube smaller than the eraser of a lead pencil—only a trifle larger than a grain of rice—has been developed by the Tube Laboratory of the National Bureau of Standards. This "rice-grain" tube, known as the "microtube," is but one development of a basic and applied research program on vacuum tubes, undertaken by the laboratory in collaboration with industry, for military and industrial uses.

An extensive study of electron emission from cathodes and other elements in the tube envelope is expected to lead to the eventual production of tubes more dependable, longer-lived, and perhaps cheaper than those now available. Other research deals with the prevention of "gas clean-up," the gradual absorption of gas in high-current relay and rectifier tubes used in industry.

Soft Die Metal

A metal so soft that it melts in hot water has been put to work by Ford Motor Company research engineers as die material for making experimental parts. The soft metal, an alloy of bismuth, tin and lead, ordinarily is too soft to stand the tremendous pressures imposed on dies. Ford research engineers have overcome this obstacle by freezing the die in liquid nitrogen, one of the coldest substances known with a Fahrenheit temperature of 320 degrees below zero. This freezing action intensifies the hardness of the surface from a consistency comparable to dried putty to the far greater hardness of ordinary brass. From six to ten stampings can be secured between chillings in the frigid bath. In the past experimental engineers have had to wait from six to eight weeks for small steel dies to be made. Soft metal dies are now produced and sample parts obtained in from 24 to 48 hours.

Chart Recorder

Wheeler Instruments Co., Chicago, Ill., announces the release of a new type strip chart recorder, the Capacilog.

The instrument, advertised as an "Electronic Scriber," operates on a Wheeler "Electronic Principle" and is designed for the measurement indication control and permanent record of variables in the process industries.

In the new Capacilog, Wheeler adds the recording function with a positive power driven pen to the electronic link between measurement and control for deflection and null method types of measuring systems.

Gear Chuck

Announcement has been made of an improved Garrison Gear Chuck for locating bevel gears by the pitch line of the teeth while grinding the bore and a portion of the back face at one chucking.

The chuck is draw-bar operated, yet adaptable to different machines, without necessity of providing proper threaded connector, because the operating mechanism is not attached or connected direct to the draw-bar. It can be operated by the machine hand lever, air cylinder, or other means.

Different gears can be handled in the same chuck through use of extra patented bevel interchangeable locating rings.

Various sizes are available, each accommodating different gears within its range.

Prices and details can be obtained by forwarding gear prints to Garrison Machine Works, Inc., 515-525 Bannock Street, Dayton 4, Ohio.

Screw Anchors

A basic new development now makes available a universal all purpose screw anchor known as the Sandcoff plastic expanding anchor, made by Holub Industries, Inc., Sycamore, Ill. The design simplifies anchoring, and holding power is assured.

The anchors may be used with wood screws or lag screws for fastening into ANY material, such as: concrete, brick, plaster, tile, stone, marble, terra cotta, composition boards, slate, metal, bakelite, rubber, glass, stucco, wood, etc.

Overlapping internal and external slits give the "Concertina" expansion for dependable holding power in any material. Pittsburgh Testing Laboratory conducted many "pull-out" tests. In several instances the screws broke in endeavoring to pull them out of concrete. The maximum load pull was 2,565 lbs. using a No. 20 screw.

The anchors are made slightly larger in diameter than the hole size to be drilled. The concertina expansion feature compresses itself and the toughness of the plastic enables it to be DRIVEN into a tight hole. The plastic used is tough, yet pliable and has tensile strength of 5,000 lbs. per square inch. It is unaffected by water, moisture, weather or acids. Has good electrical characteristics—shock and vibration proof.

Rotary Pump

A new, meter-equipped, rotary hand pump known as Fig 3005 is announced by Bruce W. Grosvenor, manager of the general sales division of Bowser, Inc., Fort Wayne, Ind.

The unit is built for fueling or dispensing of liquids up to 10,000 S.S.U. viscosity. The meter registers to 8 gallons and is equipped with a 9,999 gallon totalizer. The unit includes a 40" suction pipe with bung attachment, 8' oil resistant discharge hose and aluminum nozzle.

The 10 g.p.h. pump features include an aluminum rotor, graphite-carbon vane, cadmium plated packing nut and stainless steel springs.

A new bulletin, No. 3001, with complete specifications on four models of Bowser rotary hand pumps is available on request.

Liquid Pump

The development and production of a "Twin-Line" High Pressure Liquid Pump, for handling a variety of liquids at volumes up to 61,000 bbl. per day and pressures up to 2,000 lb. per square inch, is announced by Stanley F. Johnson, vice-president and director of sales of The Cooper-Bessmer Corp., Mount Vernon, Ohio, and Grove City, Pa.

Among the many applications are, oil pipe lines; pressure maintenance by water injection in oil production, and for water flooding; lean oil pumping in absorption plants; hot and cold oil charging service in oil refining; de-sealing service in steel mills; de-barking logs in the wood pulp industry; and high-pressure boiler feeding.

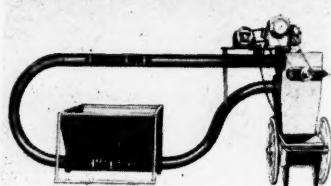
Drilling Machine

A new high speed drilling and tapping machine is announced by the Sibley Machine & Foundry Corp., South Bend, Ind.

The new 20" Swing Sibley is recommended by its makers as an all-purpose machine. It is designed as a precision tool for sensitive drilling and tapping operations at high speed, and its construction and 2 H.P. motor furnish power to drill 1½" in mild steel.

Selection of geared power feeds is made by turning a knob. Speeds are changed by a positive release lever. The eight spindle speeds available are: in back gear—45, 95, 150, and 225 RPM; in direct drive—40, 575, 900, and 1360 RPM. Feeds are .003", .006", and .010".

Sediment Remover



For automatic removal and transfer of sediment from settling tanks without removal of fluid, a new mechanism known as the "Houdallite Conveyor" is being marketed by Houdallite Crane Corp., 30 East Georgia St., Indianapolis, Ind.

The device is basically an endless link-chain, motor-driven, on which 4-inch neoprene rubber flights are mounted at 6-inch intervals. It operates through the V-bottom of the settling tank, trapping the sediment between the flights and conveying it through a 4-inch pipe-line to a collection and disposal point. The conveyor turns sharply upward upon leaving the tank, thus allowing fluid to drain back. Sediment is carried along to the dumping point where the chain and flights emerge from the pipe and discharge the load while making a vertical turn on the drive-sprocket. Drive sprocket is mounted at the top of the collection hopper. The chain is pin-connected so that it can turn in any direction and thus follow any pipeline course which may be necessary in the specific installation. The conveyor is driven through a chain-and-sprocket transmission from an electric motor and gear reduction case. The speed of operation is about two to three feet per minute.

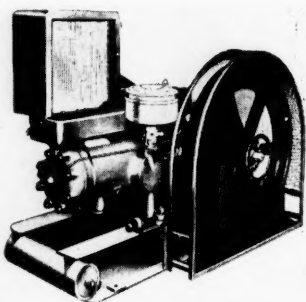
Multiduty Chuck

Airo Products Co. announces the new Model No. 3E1 Fry multiduty speed chuck which is designed to eliminate collet chuck equipment. It is adjustable to concentric or eccentric work, and has positive, tool steel jaw, position lock.

The chuck may be opened or closed in motion, high speed, either direction. The speed chuck holds round, square or hexagon stock. Capacity is ½" to 1" round, ¾" hexagon, and ¾" square. Adaptable to either engine or turret lathe.

Direct inquiries to Mr. Hugh A. Fry, Airo Products Co., 2388 Denby Ave., Los Angeles 26, California.

Lorain Type L



Multi-Fuel Engine

A new heavy-duty line of single cylinder horizontal, two-cycle, multi-fuel engines is announced by White-Roth Machine Corp., Lorain, Ohio.

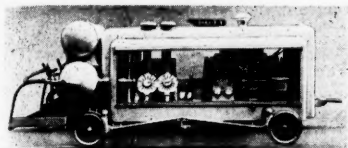
The first model, known as Lorain Type L, is noted in quantity production and available for short-time deliveries. It will operate on diesel fuel, natural gas or butane.

This engine has a rating of 10.7 h.p. @ 300 RPM and 21.4 h.p. @ 600 RPM. It has a 7½" bore and 8" stroke with Timken bearings on crankshaft and crossshaft. "Wet" cylinder liners can be replaced in the field.

Condenser type cooling system eliminates need for water pump and makeup water is negligible. Standard equipment includes Twin Disc Clutch, Pierce Governor, Air Maze oil bath type cleaner, McCord Lubricator.

Radiator, fan, V-belts, sparkplug and magnet are enclosed in metal guards. Overall dimensions are: height, 52½"; length, 70"; width, 17¼". Shipping weight is 2500 pounds.

Self-propelled Compressor



Davey Compressor

A new line of "Air Chief" self-propelled railcar compressors is announced by the Davey Compressor Co., Kent, Ohio.

Units are manufactured in 90-105-160-210-315 c.f.m. capacities. They are equipped with railway type brakes and an operator's platform capable of carrying four persons. Motive power is furnished by an air motor with clutch which provides forward and reverse speeds of from 4 to 10 miles per hour. Because of its power reserve, the machine can be used to tow other equipment. Transverse wheels provide for easy removal from tracks. Model 315 is 14 ft. long, 6 ft. wide and 5 ft. 6 in. high.

Pelleting Multipress

A new automatic pelleting multipress recently announced by The Denison Engineering Co., 1160 Dublin Road, Columbus 16, Ohio, is claimed to have the following features: Independent control of charging, compacting and ejecting ram actions; Easily toolled for rapid die changes, easy cleaning and quick die fill adjustment; Suitable for single or multiple cavity dies—solid or cored parts; All ram actions fully automatic and completely interlocked regardless of individual regulations.

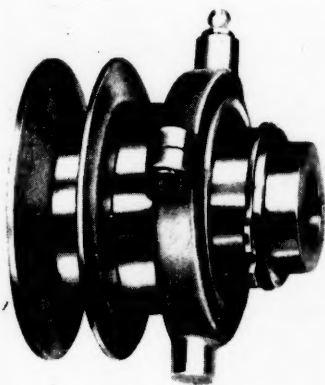
Denison's Vibratory control principle is incorporated in this press, in both the die charging and the compacting rams.

Friction Clutch

A new V-Belt friction drive clutch is now announced by the V-Belt Clutch Co., 3757 Wilshire Blvd., Los Angeles 5, Calif.

Designed to grip or release directly on V-Belts, the "Ball-lick" clutch units, complete in themselves, may be used either as driving or driven pulleys.

In operation, the positive, clutching action is the grip of the sidewalls of the pulley against the belt. When the clutch is opened, the belt slackens and idles on a free-running, grease sealed, ball bearing, with no attendant belt drag or creep.



V-Belt Friction Drive Clutch

On fixed flange of the V-belt sheave is an integrally attached part of the hub and the inner race of the sealed ball bearing belt idler.

Four free-rolling steel balls (No. 2) ride in grooves in the hub and carry all turning and locking forces. The balls are carried forward by the sliding clutch sleeve or movable flange (No. 3) and drop into pockets at the ends of their grooves. The cam sleeve (No. 4) then moves over the clutch sleeve and locks the clutch against the balls in driving or driven position. All parts turn with the shaft.

Transformers

An improved line of smaller, light, compact, distribution transformers with internal assembly made possible by the use of electrical core steel, has been announced by the Pittsburgh Works of the Allis-Chalmers Mfg. Co. The new design represents a 17 to 46 per cent saving in weight with corresponding reduction in size.

Features of the new units include spray Bonderized steel tanks with machine welded seams to insure permanent protection against leaks; high voltage pockets fabricated from a single piece of special deep-drawing steel permanently welded to the tank wall; recessed tank bottoms to provide additional protection against rusting and mechanical damages in handling; and low voltage bushings mounted with a gasketed joint which is held in compression by a pressed steel gasket ring. This ring can be easily removed at installation for replacement of L.V. bushings, if necessary, without opening the transformer.

Chain Hoist

The Chester Hoist Company, Lisbon, Ohio, announces a new line of high grade differential chain hoists made to meet present day demands of severe punishment and high-rate safety.

The construction features are full weight accurately cast sheave wheels, high tensile malleable iron frames with reinforcing ribs, drop forged heat treated hooks, special analysis hoist chains, precision made to fit sheave pockets, thereby assuring smooth, free operation, lower hook mounted on ball thrust bearing for easy alignment of loaded chain to upper pocketed sheave and swiveling of load.

It is a hoist of exceptionally few parts, therefore lighter in weight without sacrifice of any strength.

It holds its load at any point, will not self-lower, and is applicable for use by garages, stores, small firms, farms and for use on trucks.

Made in 1/4, 1/2, 1 and 1 1/2-ton capacities.

Snow Plow Wax

A new liquid snow plow wax designed to make snow removal faster and easier, is announced by Pennsylvania Refining Co., Cleveland, O.

Marketed under the trade name of Penn Drake Snow Plow Wax, the material is easily applied to moldboards, blades and wings. It immediately creates a hard, slick surface off which even the wettest snow slides easily. Because it prevents the piling up of snow, it helps to eliminate costly delays necessary for "clearing" or breakdowns from overloading.

The product is applied with an ordinary paint brush. Temperature at application should be above the freezing point and the surface should be dry. Many users apply wax during the summer or fall when plows are detached from trucks. The wax also acts as an effective means of preventing rust. The plow can be placed in service within several minutes after application. One gallon of wax covers approximately 300 square feet of plow working surface.

Snow Plow Wax is available in 1 and 2 gallon cans; 5 gallon pails; 15, 30 and 55 gallon drums. Dealer and distributor inquiries are invited.

South Recognizes Opportunities

(Continued from page 51)

especially when ingenuity is an integral part of growth. Dillman Industries of Memphis, Tenn., furnishes an illustration. Organized in 1907 to manufacture nothing but egg cases, this company has developed one new product after another, until at the present time it finds itself almost entirely engaged in its latest invention.

This new product is an exclusive type of containing device that obviates a great deal of the routine involved in packing bulky commodities for shipment. Known as the Watkins container, it is said to be so flexible in purpose as to accommodate the packaging of a variety of articles ranging from stoves and ranges to attic and blower fans. Expansion of the company's business recently required the construction of an entirely new factory.

Gulf Coast Hurricane

(Continued from page 39)

dryers and salvaged.

Loss on the Mississippi Gulf Coast, 70 miles from New Orleans, was much more severe. Few buildings along the beach front from Waveland to Gulfport escaped some damage. Many were demolished completely, with the most severe damage at Waveland and Bay St. Louis. Dozens of family camps, bath houses and recreation pavilions which stood on piling out over the Mississippi Sound were completely washed away. The beach area was one mass of rubble, but two blocks inland the damage stopped abruptly. The main business section of Gulfport suffered little damage, and theatres, restaurants and stores opened for business as soon as electric power was restored Saturday afternoon.

The \$80,000 Gulfport Yacht Club, built at the water's edge, was wiped out. Paradise Point, a jetty of land upon which were built night clubs and bathing facilities, was almost leveled.

It was estimated that 1,000 homes were completely destroyed on the beach, and the number damaged was close to 2,000. Some small homes were turned upside down, with bathtubs and wash stands remaining attached to their original place in the room. Giant electric refrigerators were hurled through the air, to half bury themselves in the sand yards away from their place of origin.

Hundreds of small boats on the Mississippi coast were destroyed, or lost, and several canneries and equipment wiped out, with an estimated \$15,000,000 loss.

Probably the biggest loss sustained by any one business was the destruction of the Louisville and Nashville Railroad bridge at Bay St. Louis. The railroad estimated \$2,000,000 would be required to rebuild the structure. Materials were being moved into the area for the job even while it was still under martial law, and residents were being supplied with emergency relief. Service is expected to be resumed in 60 days. The Mississippi Highway Department estimated \$2,000,000 will be required to replace the highway bridge over the bay, and \$500,000 must be spent on approaches. Materials were also started into the area as soon as the highway was cleared of wreckage.

The Red Cross said a survey made in conjunction with the National Insurance Adjusters Association, showed 940 homes destroyed in New Orleans, 800 homes were in need of major repairs, and 12,005 homes suffered minor damages. The minor damages category included those which suffered any damage at all, either from water, broken window panes, screens blown from doors and windows.

The Red Cross survey indicated 120 places of business were destroyed. These included, however, such small concessions as outside fruit stands and small wood-frame neighborhood stores in isolated areas. Major damage was listed to 225 places of business, and 1,900 business houses suffered minor damages, which again might include such things as over-

(Continued on page 62)

Credit Official Discusses Business Finance

by
F. M. Nicodemus

*Vice-President
Commercial Credit Company*

THERE are so many pertinent phases to the business of financing through the use of accounts receivable or inventory that giving more than a bare outline in the space available in a magazine article is like trying to put two bushels of potatoes in a one-bushel sack. Something is going to spill over. Historically, suffice it to say that financing through advances on accounts receivable has been practiced for many years. It is, in fact, a brother of the age-old practice of "factoring" although a much younger member of the family.

Financing through advances on a firm's accounts receivable or its inventory is simply a matter of making available money to, say, a manufacturer against the bills owed to him by his customers or the materials which he has accumulated for the future manufacture and sale of the articles which he produces. It is done, in the main (and in this it differs radically from factoring) on a "non-notification" basis, in which the relationship between the manufacturer and the finance company is confidential, just as would be the relationship between the bank and its depositor. "Non-notification" means that neither the manufacturer nor the financing organization notify the customer that his account has been sold; the manufacturer collects his bills in the ordinary way and remits to the finance company.

Let us say, for sake of example, that a furniture manufacturer has a well-managed business and an energetic sales force which produced a \$100,000 monthly sales record last year. Business is booming this year but the boom is proving somewhat of a boomerang. His customers now average 30 days for payment, which means that at most times he has an average of \$100,000 of his own money in customer's hands. This sum increases as his business improves. Should collection periods lengthen, the sum would jump correspondingly.

Every manufacturer who has found himself in a tight cash position knows the normal difficulties, such as simply meeting payrolls. Every one also knows the many opportunities for profit which come with a good cash position—the ability to pay-off his suppliers promptly, thereby profiting by discounts taken and by improved credit ratings. Prompt payment of taxes eliminating interest charges also means increased profit while frequently opportunities arise to purchase materials for cash at considerable concession in price.

Our manufacturer does not need long-term financing such as a stock or bond issue, nor would a time loan, which would carry fixed charges, precisely fill the bill. The flotation of stocks or bonds is generally an expensive business initially and continues to drain off revenue; a loan is, as a rule, inflexible. In obtaining it the manufacturer estimates his peak requirements for the coming months and obtains credit for that amount paying in ad-

vance the interest on the full amount. Frequent renewals are necessary.

But what our man needs is a form of day-by-day financing. Looking ahead as any good business man should do, he knows that there will be times when he will need \$50,000 in cash readily available. On the other hand, there are monthly periods when \$25,000 will suffice. When his customers remit, he may have a cash surplus; during this period, paying interest on stocks, bonds or time loans would be a dead loss. Also, it would be simpler to establish a line of credit and maintain it without the necessity of renewals.

This can be done by financing through accounts receivable. What is equally important, the advances to him need not be limited by his capital investment; as his accounts increase, so does his financing power.

The manufacturer contacts an organization advancing funds against accounts receivable. From there on, assuming that his business and credit present a normal risk, the going is easy.

A normal question is, "Just what do I get?"

The manufacturer will get as an advance approximately 80 per cent of the face value of the accounts he assigns to the finance company. While there are exceptions, the conservative, old-line finance company knows that it must have a clear margin of 15 per cent. There are various factors which enter into this, which include the normal loss expectancy faced by every business; failure of accounts to take advantage of discounts and deductions for returns, damage to goods in transit, etc. In addition, should the customer become involved, leaving the company to collect direct from the accounts, experience has shown that the average collection expectancy is from 85 to 90 cents on the dollar.

Therefore the manufacturer, the line of credit having been opened, can expect (and it must be emphasized again, there are exceptions to this as to every rule) an immediate advance of approximately 80 per cent., or 80 cents on every dollar assigned to the finance company. The manufacturer receives the remaining 20 per cent. as his customers' accounts are collected.

Under the "non-notification" feature of accounts receivable purchasing the finance company, while reserving the right to collect direct never interferes in any way between the manufacturer and his customer. The finance company does, however, conduct an indirect verification of the accounts and checks manufacturing accounts records from time to time.

For the money advanced the manufac-

turer usually pays a per diem charge at the end of each month based on the average daily amount of receivable outstanding. Of course, as in any banking deal, other arrangements can be made to fit specific cases.

Where a firm's cash requirements remain at one level it would be foolish to assert that a time loan would not ordinarily be cheaper. But when the need for money fluctuates from day to day, as happens in most cases these days, financing through use of accounts receivable provides many ways to lower cost below time loans.

Financing against inventory is much the same, insofar as credit, terms and advances are concerned. Much depends, however, on the type of inventory carried by the manufacturer, particularly in the unsettled market conditions of today.

I feel sure that the average business man can understand this. When the finance company—or the bank, for that matter—puts up its money against materials in a public or field warehouse, it must be reasonably certain that it can find a market for those materials at not less than the outstanding loan should the unexpected happen and it find itself taking them over. Just as the intelligent manufacturer would not produce something he knew he couldn't sell, so the financier must be fairly certain that he can dispose of his collateral should the need arise. Good business judgment would not, for instance, warrant advancing money against a Detroit warehouse full of horse shoes or the proverbial supply of ice boxes in Eskimoland. By its very nature, therefore, the use of inventory as collateral is not quite as flexible as accounts receivable.

There can be no question, however, that it has a very definite place in the financial world and, as developed by our company, has been of material assistance to manufacturers from a physical as well as a financial point of view. First, consider that when money is advanced against inventory, the materials, whatever they may be, legally belong to the firm supplying the money, until such time as the materials have been translated into saleable products. During that period the intelligent finance company will maintain close scrutiny over the inventory.

Efficient inventory control today amounts to a science. It is not a matter of putting a clerk inside a cage. In order to conduct the necessary supervision, my company has, for some time, had a Trades and Industries Department to install a control system wherever inventory financing is done. This control gives the manufacturer a complete picture of his inventory position from day to day. This system has not only served as a protection to us but it has also, in many cases, been used as a guide by manufacturers. An excerpt from a letter received by us tells the story:

"In conjunction with the Inventory Fi-
(Continued on page 62)

NEW COTTON - PICKER PLANT SERVED BY PRIVATE WATER COMPANY



THE International Harvester Company's new cotton-picker plant at North Memphis, Tenn. obtains its water for general service and fire protection from the Industrial Water Company . . . a private water company located adjacent to the plant. The 500,000-gal. Horton elevated tank shown above is used to provide gravity pressure.

The water is pumped from three deep wells, each capable of producing 1,000 gallons per minute. The water is aerated, filtered through anthracite and gravel to remove all iron and CO₂ gas and chlorinated to meet International Harvester Company specifications. Three pumps with capacities of 2,000, 1,500 and 1,000

gpm are used to supply the required demands. The elevated tank rides on the plant supply line to make up the difference when plant requirements exceed that supplied by the pumps, and to maintain the pressure in case the operation of the pumps is temporarily interrupted.

Horton elevated tanks are widely used to provide gravity water pressure for general industrial service and automatic sprinkler systems, as well as for municipal distribution systems. When you require water storage facilities, write our nearest office for estimating figures on Horton tanks. Please state capacity required, height to bottom, location and service for which tank is to be used.

CHICAGO BRIDGE & IRON COMPANY

Atlanta 32145 Healey Building
Birmingham 11530 North Fiftieth Street
Houston 15614 Clinton Drive
Tulsa 31611 Hunt Building
New York 63313—165 Broadway Building
Cleveland 152216 Guildhall Building

Chicago 42106 McCormick Building
San Francisco 111240-22 Battery Street Building
Philadelphia 31619—1700 Walnut Street Building
Los Angeles 141417 Wm. Fox Building
Havana402 Abreu Building
Detroit 261510 Lafayette Building

Plants in BIRMINGHAM, CHICAGO and GREENVILLE, PENNSYLVANIA

Trade Literature

The Sullivan Co., Memphis 2, Tenn., has available for interested users a series of descriptive folders incorporated into a group called A.I.A. File 7. In the file are illustrated and described the various commodities produced and distributed by the company. These include: liquid or plastic fiberized waterproofing compounds, plater bond, floor hardeners and sealers, preservatives for canvas, wood preservatives, cement mixing compounds, water repellents, cement masonry paint, concrete cleaners and other plastic and cement products.

"The Story of ABC" is a 20-page brochure issued by Alabama By-Product Corp., Birmingham, Ala., describing its facilities for production and service, and outlining the growth that has brought the company from an original small operation to one of nation wide importance. Among the listed products of the firm are: industrial coke, foundry Xylo, coal tar, coke oven gas, coal of various types, benzol, toluol, sulphate of ammonia, naphtha, and related items.

Dilemmas growing out of the war-created housing shortage furnish the basis for the theme in a recently published book by Mrs. Elmore Roberts of Great Falls, Mont.; publishers Greenberg, New York. Mingling humor with seriousness the book describes how American families with home space to spare during the war reaped the fruits of both intriguing adventure and exasperating predicament by dedicating their extra space to the housing of members of the armed forces and others engaged in the war effort.

How to achieve co-ordination of all steps in materials handling at relatively low cost is fully described in a new book on "The Turner System of Materials Handling."

The book includes illustrations showing scientifically engineered handling methods. Specially designed units for the most efficient operation of the system are illustrated.

Among subjects covered in the book are the concentration of materials within easy reach of operators, vertical and horizontal expansion, practical stacking and storing, the elimination of waste motion in handling, and the use of materials. Transports, Bin Scoops, Pallets, Shelves, Pallets, Shop Boxes, Trays, etc. The systematic movement of products or parts through the plant and a series of interlocking units of almost unlimited flexibility are explained in other sections of the book.

A copy of the new book will be sent without charge upon request. Address: Factory Service Co., 4675 North Twenty-first St., Milwaukee 9, Wis.

Superior Engine Division of The National Supply Company has issued a bulletin on the company's locomotive Diesels. The bulletin, No. 1707, includes factory photographs that show how Superior locomotive Diesels are built, photographs of the engines, specification tables and dimensional blueprints. Also included is a list of standard and special equipment for the various engines. Copies may be obtained by writing The National Supply Company, Superior Engine Division, Springfield, Ohio.

The publication of a new sixteen page booklet, "The Hortonspheroid and Hemispheroid" has been announced by the Chicago Bridge & Iron Co., Chicago, Ill. This booklet describes the reduction of evaporation losses from motor and natural gasolines by storing them in Hortonspheroids or Hemispheroids. A standard capacity table indicates the operating pressures available for each size of vessel. Cutaway drawings included in the booklet show the general design of the noded and smooth Hortonspheroid and the noded and plain Hemispheroid. A copy of the booklet will be sent on request.

Six torque indicator models are listed in a new catalog bulletin issued by Blackhawk Mfg. Co., Milwaukee 1, Wis.

Torque indicators (tension wrenches) are, in effect, socket wrench handles which measure the amount of pull exerted by the workman. They enable uniform tension on a series of bolts, to prevent distortion of the assembly.

Blackhawk Torque indicators include a model having fine readings within a 50 foot-

pound range. The largest model has a capacity of 1000 foot-pounds.

The new bulletin, No. 46T (along with a 36-page socket wrench catalog), can be had by writing Blackhawk Mfg. Co., Milwaukee 1, Wis.

Footo Bros. have available a 12-page pictorial bulletin for engineers and designers of heavy equipment. "Special Machinery to Your Specifications" presents illustrations of lock and dam machinery, gate and valve lifts, bridge operating equipment and other heavy operating machinery involving standard or special mechanical drive equipment custom built to specifications. Footo Bros. Gear and Machine Corp., 455 S. Western Blvd., Chicago 9, Ill.

Selenium Corporation of America offers a new 12-page brochure on self-generating photo-electric cells. Included are characteristics, applications and design factors. Standard specifications and illustrations of the various shapes and sizes of photo-electric cells. Copy on request—2100 East Imperial Highway, El Segundo, Calif.

A bulletin on the Hydro-Power hydraulic booster, pressure intensifier designed to double or triple pump pressure in oil-hydraulic circuits, is available from the manufacturer, Hydro-Power, Inc., Belmont and Sheridan Aves., Springfield, Ohio.

Generating pressures up to 7500 psi, the booster is applicable to both new and old equipment. The bulletin describes operation, lists sizes and dimensional information, and considers booster applications, including schematic drawing of a typical hydraulic booster circuit.

An illustrated 12-page booklet (Bulletin No. 603) describing its new line of press-type spot and projection welders and containing information for the purchasing agent as well as to the design engineer has been made available by Progressive Welder Co., 350 E. Outer Drive, Detroit 12.

In addition to carrying tables of specifications, installation dimensions, and rated spot welding capacities; data on standard features and standard extras, etc., there are numerous line drawings illustrating the theory and application of spot and projection welding, as well as phantom views to show details of machine construction.

Jessop stainless steels and heat-resisting steels are described in a new booklet issued by Jessop Steel Co., Washington, Pa. The chemical analyses, physical properties, corrosion resistance ratings, and fabricating properties of standard types of steel have been included.

A "Guide to Selection of Durco Corrosion Resisting Alloys" recently published by The Duriron Co., Inc., of Dayton, Ohio, lists 155 corrosives in alphabetical order and shows which of five Durco alloys offers most satisfactory resistance to each corrosive.

Where two or more alloys are satisfactory for a particular service, the four-page bulletin enables the user to make a selection on the basis of the most economical alloy possessing the required mechanical properties. A table is provided which shows the mechanical properties of each alloy.

The alloys discussed are: Duriron and Durichlor, high silicon irons; Durimet 20, an austenitic stainless steel; Durco D-10, nickel-base alloy; Chlorimet 3, nickel-molybdenum-chromium alloy, and Chlorimet 2, a nickel-molybdenum alloy. By means of an "A. B. C. D" code the relative ability of each alloy is shown for each corrosive service.

A free copy of this "Guide" can be obtained by writing to The Duriron Co., Inc., Dayton, Ohio, and requesting Bulletin 103.

New steam platen presses for plywood fabrication are covered in a bulletin issued by The Baldwin Locomotive Works. The new bulletin describes equipment for the manufacture of plywood and pressed board. It also contains a table showing capacities, platen areas, closing and pressing speeds and other technical data. Those interested should write: Press Division, The Baldwin Locomotive Works, Philadelphia 42, Pa., for Bulletin 277.

Publication of a leaflet descriptive of the new Air Chief line of industrial air compressors is announced by Davey Compressor Co., Kent, Ohio.

The new literature contains mechanical data and specifications on complete Davey departmental units of 60-165-160-210 and 315 c.f.m. capacities, it also lists bare compressors suitable for installation with customers' motors or as replacement machines.

An illustrated folder that describes the 276 cu. ft. capacity, weathertight welded steel shipping containers recently developed by

Dravo Corp., Pittsburgh, to facilitate material handling and minimize pilferage losses in marine, rail and motor freight transportation, is now available for distribution.

The folder (Bulletin No. 230) explains economic advantages that could be realized by transporters and shippers by using Dravo Shipping Containers. It also describes construction details of the containers and various ways in which they can be utilized to carry many different types of merchandise.

New sizes and types of enclosed herringbone gear units for speed-reducing and speed-increasing service, are detailed and described in a new Book No. 1819 of 68 pages, recently completed by Link-Belt Co., Chicago 1, Ill., and now available for distribution.

Link-Belt herringbone-gear reducers are described as fully enclosed units, designed for heavy-duty industrial service where heavy shock loads and continuous service are encountered.

They are now available in sizes ranging from 1/2 to 1000 h.p., permitting their use in that larger field of horsepower not adequately served by motorized or worm gear reducers. (Link-Belt also makes these types.)

An important new reference book for marketing men is offered by the Census Bureau summarizing pertinent population, labor force, housing, distribution and manufacturing facts for more than 3,000 individual counties and metropolitan county groups.

Titled "County Data Book," the 140-page volume is a supplement to the annual "Statistical Abstract of the United States." The purpose of the new volume is to collect 90 significant facts about each county in a single place where they can be readily found.

While most of the facts are taken from the big 1939 censuses, the "County Data Book" also contains local information for each county indicating the impact of wartime contracts and construction.

A revised edition of Tennessee Eastman Corporation's book on Tenite has been announced. Containing 32 pages and 100 illustrations, many of them in color, the book introduces Tenite and is written for those interested in learning about what it is, how it is made and what are its uses, among which are those in the automotive, aviation, electrical insulation, home appliance, architectural and sporting goods fields. Copies may be obtained from Tennessee Eastman Corp., Kingsport, Tenn.

Coming Events

Exhibit space in the Made-in-Georgia Exposition, to take place Oct. 8-12 at the Atlanta Auditorium, has been reserved by: Associated Industries of Georgia, Atlanta; Associated Southern Planters Co., Quitman; Atlanta Paper Co., Atlanta; B & C Packing Co., Quitman; Brooks County Chamber of Commerce; Pickett-Brown Manufacturing Co., Atlanta; Fulton Bag & Cotton Mills, Atlanta; Georgia Educational Assn., Atlanta; Georgia Power Co., Atlanta; Hancock Lumber Co., Quitman; Lilly & Crum Dog Food Co., Quitman; McKenzie Farm Specialties, Montezuma; Metal Arts Manufacturing Co., Atlanta; Moncrief Furnace Co., Atlanta; Quitman Hosiery Mills, and Quitman Mills, Scripto, Inc., Atlanta; Smyrna Industries, Smyrna; Southern Frozen Foods, Montezuma; Stevens Pictures, Inc., Atlanta; Valley Fan Manufacturing Co., Fort Valley; Yot Waters Concrete Co., Quitman; Youthform Co., Atlanta. In addition, other reservations are expected, and the State of Georgia will have eleven departmental exhibits. Other events:

Oct. 18 to 19: National Metal Congress and Exposition, Chicago.

Nov. 3 to 5: National Electronics Conference, Edgewater Beach Hotel, Chicago; Dr. R. E. Beam, secretary.

Nov. 17 to 20: American Bottlers Convention, Atlantic City.

Nov. 23 to 24: Intercoastal Canal Association, Roosevelt Hotel, New Orleans; Dale Miller, executive vice president.

Dec. 1 to 6: Chemical Industries Exposition, Grand Central Palace, New York City.

Feb. 2 to 6, 1948: Air-Conditioning Exposition, Grand Central Palace, New York City; Charles F. Roth, manager.



A Pioneer in Pensions

Bell System Plan for Employee Pensions and Benefits has been in effect for thirty-four years.

Long before there was any thought of Social Security or of pensions by most companies, the Bell System instituted a Pension Plan for its employees. The plan went into effect in 1913.

The Bell System Pension Plan was not only one of the first pension plans but it has continued to be one

of the best for employees. The full cost is paid by the Company. The employee is not called upon to contribute anything.

16,967 Bell System employees (10,769 men and 6,198 women) were receiving pensions at the end of 1946.

The Pension Plan is part of a comprehensive Benefit Plan that also covers sickness, accident, disability and death payments. These were paid to more than 110,000 employees and their dependents in

1946. During that year, one Bell System employee in every seven benefited directly from the sickness provisions alone.

All of this is in the interest of the public as well as telephone employees. Because for you to have good service we must have good people to give it to you.

These Pension and Benefit Plans are part of the Bell Telephone Company's responsibility as a good employer and a good citizen in every community in which it operates.

BELL TELEPHONE SYSTEM



Tennessee News

by

GEORGE I. WHITLATCH

Economist

Tennessee State Planning Commission

Sale of two Tennessee war plants, both at Columbia took place during the past month. One, the Maury CWS Plant was reported sold to Maury County Farmers Cooperative; the other, a carbon plant was bought by National Carbon Co.

Norris Park, a 40-acre wooded recreation area near Norris Dam is being offered by TWA for long-term lease for development and operation as a vacation and tourist resort. Facilities available for immediate use, and that may also serve as a nucleus for further development, include about 50 cabins, tea-room, stable for saddle horses, superintendent's residence, utility buildings, tent and trailer area, and swimming facilities. Complete sewerage and water systems serve the present facilities, and up to 3,000 acres of adjoining land are available for further expansion.

Mechanization of cotton production has received added impetus with development of a cotton blocker. This device, invented and patented by James A. Kelley of Memphis, comprises a heavy drum which operates on top of a cotton row. It cuts weeds and cotton plants which are to be removed, leaving plants spaced at predetermined intervals. The machine is designed in both tractor and walking cultivator models. It is reported that Mr. Kelley hopes to have the blocker in production by early spring. The machine is said to do the work of 12 field hands.

Searches for gold in two East Tennessee areas have added interest to current mineral prospecting activities in the State. In upper East Tennessee, an area in Carter County near Watauga is being explored in an effort to locate an historic mine reputed to have been worked by Spaniards. It is reported that the old mine shaft, together with some Pay Dirt has been located. At Ocoee, in the southern end of the Tennessee Valley, another search is on for a mine also legendary in character. Original evidence of this mine arose from the report of a Cherokee

Indian. Of even more interest, however, is the search for the black gold of crude oil that is continuing to receive much attention, especially in Middle Tennessee. A strong gas flow, encountered in one well, has spurred effort by oil interests engaged in making preparations for several deep-hole tests.

Southern Clay Co. of Paris is a new company being formed by local interests to mine and process the well-known Porter's Creek clay into an oil-absorbent floor-sweep compound. Heading the new venture is J. Kelly Dick, who in 1937, initiated the first development of that clay in Tennessee. At that time, Mr. Dick started a plant to produce oil-bleaching clays. This plant has continued in successful operation, and during the war, saw its product put to a new use, the basis for the present new project.

Both Heyden Chemical Corp., and Quaker Oats Co., have announced plans for substantial expansion of their Memphis plants. The former is now producing chlorine, liquid caustic soda, and hydrogen, using Louisiana rock salt as its basic raw material. The Quaker Oat Chemical Co., producing furfural, has now an annual capacity of 24-million pounds and expects to increase this amount by 50 per cent. Built to use cottonseed hulls as raw material, this plant now also uses rice and oat hulls, and corn cobs.

A set of courses in labor relations will be given in University of Tennessee extension classes beginning this month. Dr. Frank B. Ward, head of U. T. Department of Economics will direct the courses.

Tennessee State Planning Commission is releasing this month a new 43-page manual, prepared for the guidance of local industrial development groups. Outlined are a suggested set-up for such local organizations, and procedures useful to follow. Titled "Partners," the manual will be distributed to all members of the Commission's division, and is available to others at \$1.00 per copy.

Construction of the new plant of Humboldt Full-Fashioned Hosiery Mills is reported as being 80 per cent completed, and contractors hope to turn the plant over for operation within a few weeks. This \$2½ million plant is reputed to be the largest and most modern hosiery mill in the world. Training of workers is expected to begin immediately.

Letters

EDITOR, MANUFACTURERS RECORD:

On page 10 of the September MANUFACTURERS RECORD appears a news item stating the MK&T established a first in the Southwest with its recent installation of radio telephone sets on six of its new diesel switch engines in Dallas.

To the Missouri Pacific "firsts" isn't something we get unduly disturbed about but to keep the record straight, since the Southwest to us embraces that territory west of the Mississippi river, the Missouri Pacific was the first railroad in that section of the country to install train-radio.

RAY MAXWELL,

Director Publicity-Advertising.

EDITOR, MANUFACTURERS RECORD:

Enclosed find \$1.00. Please mail me two copies of the August issue.

I have asked our Arkansas office to send in our subscription.

I have been an oil operator and producer for almost a half-century and I consider the article on "Men in Boots" by Robt. L. Kidd, the best I ever read on the subject.

That goes for them all—*Oil & Gas Journal*, *Oil Weekly*, *Derrick Oil* and all the daily Oil Editors.

Sincerely yours,

CHARLES J. HAGERLING,

Room 315, Henry Clay Hotel,
West Point, Miss.

EDITOR, MANUFACTURERS RECORD:

I have been fortunate enough to secure the January, 1947, copy of your magazine which featured Missouri. I find that it contained splendid material which can be used very effectively in the teaching of Social Studies. I would like to know if similar articles are still available. If those articles are available, I would appreciate your sending me a list and the prices at which I can secure them.

Very truly yours,

JEAN ROSENWINKEL,

Hammond, Ind.

EDITOR, MANUFACTURERS RECORD:

We were sorry to see in your "Little Grains of Sand" Department in your August issue a couple of apparently off-hand paragraphs about TVA which are hardly justified by the facts.

On page 23, your Sand man declares, TVA is "an agency using government money under a fancy and fanciful hodgepodge of accounting practices." The "fancy and fanciful hodgepodge of accounting practices" used by TVA, and by the municipal and cooperative agencies which distribute TVA power, happen to

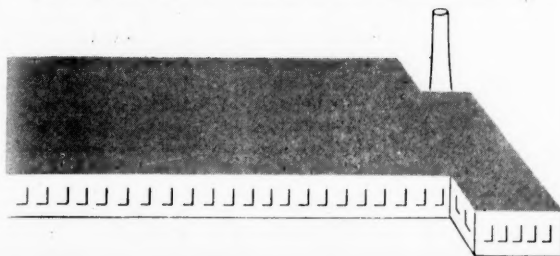
be those prescribed for all major electric utilities by the Federal Power Commission in its uniform system of accounts. TVA is, in fact, required by its statute to keep its accounts according to the FPC system.

On page 30 the Sand man declares, "TVA has scant interest in navigation, irrigation, and flood control. Chattanooga is still subject to disastrous floods, and it was the chief sufferer before TVA. *** The terrain is ideal for power dams, and these are not what TVA has built, tax free."

To give him his due, the Sand man is correct about irrigation, which is not a problem in an area averaging 52 inches of annual rainfall, but the requirements of navigation and flood control are both legally and in fact superior to those of power production in the operation of the multiple-purpose system. As to navigation, TVA dams have provided a 650-mile modern channel and its use by commerce is steadily growing. As to flood control, the system provides more than 11,000,000 acre-feet of storage for the control of floods not only on the Tennessee but in the lower Ohio and Mississippi valleys as well. Chattanooga is substantially protected against a flood as large as that of record (1867); in the past two winters, TVA reservoir control reduced by 10 and 12 feet respectively what would have been the fifth and sixth largest floods in the history of Chattanooga, thereby averting

(Continued on page 64)

INDEPENDENCE



FOR INDUSTRY

Freedom to grow, to expand, to chart your own course await industry in Columbia, South Carolina.

Plant construction and operating costs in Columbia are favorable to industry. The supply of labor is plentiful. Progressive workers, quick to adapt themselves, are anxious to utilize their industrial skills. Already here are vigorous, energetic firms prospering because of raw materials and competent workers. In a region rich in natural resources, Columbia is also the distribution center of the state.

FREE SERVICE — Consult the Industrial Service Bureau for unlimited help in developing your preliminary plans, conducting local surveys, making labor studies, etc. There is no cost or obligation for these services, and we pledge continuing cooperation after you locate in Columbia.

• Write, wire or telephone to:

INDUSTRIAL SERVICE BUREAU

Dept. M

Liberty Life Building
Columbia, S. C.
Telephone 4-1026

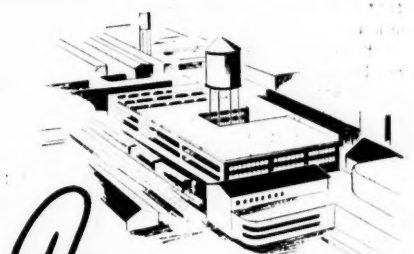
P. O. Box 1405

COLUMBIA

SOUTH CAROLINA

OCTOBER NINETEEN FORTY-SEVEN

MISSISSIPPI... the only state with a PLAN



Mississippi MONEY

HELPED
BUILD

57

INDUSTRIAL PLANTS
IN PAST 24 MONTHS

Mississippi people in the past 24 months have invested more than \$5,000,000 to build plants for new or expanding industries under BAWI, the only plan of its kind in the Nation. Scores of other communities are ready now to invest in sites and new plants for you. The savings you will realize in having a plant built to your specifications is worth considering. But more important is the evidence of cooperation, the demonstration of faith on the part of Mississippi people. With their own future at stake, you can count on harmony and full support from your workers and the community in which you locate.

When planning your vacation, why not come to Mississippi? Combine business and pleasure — learn first-hand how BAWI works, and then, relax for awhile and discover a new way of life.



Ask for a confidential report on Mississippi's new industrial opportunities.

MISSISSIPPI AGRICULTURAL AND INDUSTRIAL BOARD

New Capitol Building

JACKSON, MISSISSIPPI

(BAWI Means Balance
Agriculture with Industry)

New York Office
1001 Two Rector St.



MISSISSIPPI

★ THE BAWI STATE ★

61

Texas Power Sharply Up

A Federal Power Commission power market survey of Texas, released Sept. 19, indicates that the annual electric energy requirements of the state will increase from about 8 billion kilowatt-hours in 1945 to over 16 billion kilowatt-hours in 1965. This growth will result largely from industrial expansion but a substantial part will also be attributable to increased commercial activity and greater use of electricity in the home and on the farm, the report adds.

The report reviews the past and present power situation, estimates the future requirements and additional power needs, and computes the cost of steam electric power as a measure of the value of power that could be produced at proposed hydro-electric developments in the area.

Tables included in the publication show the increases in kilowatt-hour requirements at the end of each five-year period. Requirements for 1945 and as estimated for the years 1955, 1960 and 1965 are shown below:

1945—7,991,000,000; 1955—11,826,000,000; 1960—14,240,000,000; 1965—16,230,000,000.

Copies of the survey may be obtained from the Federal Power Commission, 1800 Pennsylvania Avenue, N.W., Washington 25, D. C., at \$1.00 each. When ordering, please refer to FPC-P-11.

Business Finance Discussion

(Continued from page 56)

nancing, a special word of praise is due your Trades and Industries Department, whose suggestions with reference to handling and storing inventories have saved us countless man hours and many thousands of dollars."

I am not certain what other companies specializing in this type of financing are doing in the way of inventory control. I do know, however, that efficient banking practice requires just such supervision for safety—and it frequently brings added good will from the customer.

These thoughts are but the bare bones of commercial financing which is tailored

along custom-made lines, in contrast to such forms as retail automobile financing which might be described as the ready-made variety. I would advise any business firm seeking additional cash as working capital or for expansion purposes or for any other legitimate reason to seek out the nearest finance company representative and outline his problems. There are many variations of the two types of commercial financing described here, all designed to do the same thing—permit flexible acquisition of needed money without the taking on of long-term financing. I might add that finding the representative will not be difficult; today neither finance companies nor banks hide their lights under a bushel.

Gulf Coast Hurricane

(Continued from page 55)

head signs, windows, etc.

In Jefferson Parish, above New Orleans, 200 homes were destroyed, 1,500 suffered major and minor damages, the Red Cross said. Thirty places of business were destroyed, and 75 places damaged.

Six thousand families suffered some loss in Jefferson Parish, the Red Cross estimated.

Some of the 600 persons living in refugee units, according to the Red Cross, will have to remain there for some time. The Red Cross said it would make houses habitable, if the owners could not assume the responsibility themselves.

Insurance adjusters set up two emergency offices in New Orleans, and anticipated 25,000 different damage claims would be filed.

In Plaquemine Parish, southeast of New Orleans, 10 homes were destroyed, 16 suffered major damage and 150 minor damage: In St. Bernard Parish, 1,500 families suffered some loss, 80 homes destroyed, 50 major damages, and 150 suffered minor damages. Eight places of business were damaged.

Alabama

Most of the damage suffered in Alabama was among farmers in Baldwin and

Mobile Counties, marking Alabama's short portion of Gulf coast. The best figure available is that \$1,500,000 was lost in crops in the two counties. In Mobile County, the pecan crop was destroyed with loss of about \$500,000 according to Charles J. Brockway, County Agent. Losses in other crops should boost the total in Mobile County to over \$1,000,000.

In neighboring Baldwin County, crop damage was set at \$250,000 including \$150,000 loss in pecans. In addition to pecans, both counties grow corn and tung trees. Because the storm did not bear down directly on Alabama coast and because of the short length of the coast, damage to buildings was practically negligible.

Lewis P. Goodwin, of Montgomery, recently returned from a trip to his south Baldwin County summer home, reported that even the less substantial summer homes were not damaged except for those too close to the water or on low foundations. Merchant shipping and fishing fleets had been moved upstream on the Tensas and Mobile rivers and escaped damage.

The fact that Mobile was first thought to be directly in the path of the hurricane caused residents to take precautions more stringent than those needed to forestall damage from the storm when it actually hit.

From personal observation, having been to both places, Mobile citizens were better prepared than those in New Orleans to meet the storm.

George W. Phillips, maintenance engineer of the Alabama State Highway Department reported that road damage also was negligible, not more than \$500. This covers the state-maintained roads only but is indicative of the small damage to other roads.

Approximately nine miles of road in Mobile were under water for a while and may require some attention to breaks. The short coastline, adequate warning and preparation, and the fact that the storm did not hit head on, served to limit damages to those suffered in crops, with almost no effect on industry or homes.

Southern Business Outlook

(Continued from page 10)

They indicate that only further increases in income can make the district retain the economic position it acquired during the war."

However, many business economists in this area are confident that continuing income increases, compared to other regions of the nation, will enable this section to hold, and perhaps to advance, its wartime economic gains.

Certainly, despite the clamor over prices, many segments of the Southeast's economy show a healthy glow. Construction—under what it would be currently were it not for the price situation—nevertheless continues at a rapid clip. Within the last few weeks, for example, apartment buildings valued at well in excess of \$5,000,000 have been announced for Atlanta alone. The most recent of these was a \$2,500,000 project announced here in mid-September. New dwellings continue to go up all over the region. Business and industrial structures still are being built with a tremendous backlog held temporarily in abeyance. A few days ago the Pickwick Hotel announced plans to erect a new hotel in downtown Atlanta to help overcome crowded hotel facilities here.

The textile industry, as a whole, appears healthy. The tufted textile industry, which underwent a slump after the war, is coming back strong, with orders mounting for quality merchandise and some individual businesses seeking additional workers. The garment trade, located to a large extent within a radius of about 50 miles of Atlanta, also is forecasting improved conditions, and individual manufacturers say they are highly pleased with orders coming in for the medium-priced lines upon which emphasis heretofore is concentrated.

In Georgia, the State Public Service Commission has just authorized the Georgia Power Company to issue \$10,000,000 in principal amount of first mortgage bonds to finance a far-flung expansion program. The company will use the proceeds for the construction of power plants, extension and improvement of other facilities and for reimbursement to its treasury for unfunded expenditures made for such purposes.

Georgia Tech has let contract for a new textile school building which will cost \$905,280 and is expected to be the finest of its kind in the nation, perhaps in the world.

So much business building is under way in Atlanta that city

officials are being flooded with protests from home seekers that dwellings are being torn down to make room for the business structures. This, coupled with already acute housing shortages, is resulting in a difficult situation. Joseph B. Hosmer, research economist at the State Engineering Experiment Station at Georgia Tech, has just completed a study showing that the housing shortage in the metropolitan Atlanta area has kept approximately 25,000 persons from moving into this city who otherwise would have taken up residence here. He sees a need for more than 16,000 additional dwelling units in the metropolitan area.

The Made in Georgia Exposition to be held in Atlanta October 8-12 is expected to focus nationwide attention upon the wide variety of products now being manufactured in this area. More than 100 invitations to attend the exposition have been extended to an imposing list of metalworking executives from over the world who already are in the United States for Mid-western trade shows.

Economists here see as one urgent need at the present a higher output per man hour to help offset wage increases and serve as something of a buffer against recession influences.

But, all in all, the faith that so many have in the Southeast was summed up by a speaker who a few days ago addressed a meeting of the Atlanta Manufacturers and Distributors Association, saying:

"As many ominous signs as there may be, maybe I'm just an optimist at heart. But I'm sold on the South, and particularly this region we call the Southeast.

"I think that at last, we lackadaisical Southerners, are beginning to figure we look a little better—economically speaking—in modern dress than we did in crinolines. Last year, in short skirts, we showed a right nice pair of knees to our competitors in the business world. And I suspect, even though long skirts now seem to have been decreed, that we'll still be able to display a nicely-turned pair of ankles—still economically speaking.

"We Southerners are getting over an age-old inferiority complex—a complex that made us believe we down South just couldn't compete with the more highly industrialized regions when it came to manufacturing. But already we're proving we can compete—and on a pretty darn good basis."

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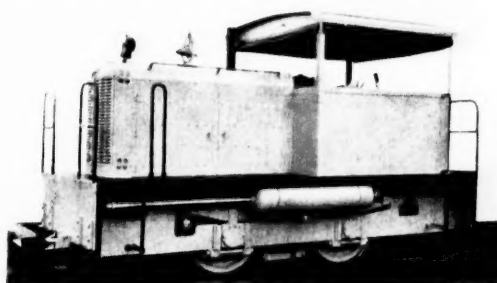
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Letters

(Continued from page 60)

damage of \$17,500,000. Complete protection for Chattanooga against floods greater than those in the past, as TVA has made clear, cannot be provided by reservoirs alone, but a levee system as proposed by both TVA and the U. S. Army Engineers, would in combination with the reservoirs provide complete protection against a flood more than 50 per cent greater than that of 1867.

As to taxes, TVA has in the past year paid \$1,600,000 in lieu of taxes to states and counties in which its power is produced or sold, and will, in the current fiscal year pay \$2,000,000, which can hardly be called "tax-free." It does not, of course, pay federal taxes to the U. S. Government, which owns all its net income anyway.

W. L. STURDEVANT,

Director of Information.

TENNESSEE VALLEY AUTHORITY

The fact that TVA is required by statute to keep its accounts the way it does, does not make the system right, particularly when that system gives misleading results.

The fact is that TVA enjoys certain privileges denied to private enterprise in its operating practices which lead to a false financial showing. The one item mentioned of taxation clearly illustrates the point. Many private enterprises now showing a loss could reflect a profit if it were not necessary for them to pay taxes.

TVA operates in competition with private enterprise, and any loss it may incur must be paid by its competitors. Even the taxes which TVA does not pay must be borne by private enterprise.

Why should not the TVA pay taxes and be judged by the same accounting methods in this and all respects as privately-owned utilities?

Editor, *Manufacturers Record*.

Sirrine Announced as Engineers for Childersburg Newsprint Project

Coosa River Newsprint Co., through President Edward L. Norton, last month announced signing of a contract with J. E. Sirrine & Co., for engineering on the \$30,000,000 pulp and paper mill proposed at Childersburg, Ala. The Greenville, S. C. firm has been engaged on the preliminary work since the project's inception. Fifteen publishers have subscribed \$2,045,000 toward the new enterprise.

Three officials of the company were also announced. They are A. G. Wake-man, vice president and general manager, who will be in charge of design and construction; William E. Hornbeck, resident manager for the new mill, and Howard Neubauer, office manager.

Houston, Third Deep Sea Port

(Continued from page 48)

ing wave of post-war trade, Port Houston is determined to hold and better that position.

Under a plan developed by Port Director J. Russell Wait, who is also chairman of the Houston Port and Traffic Bureau, the far-reaching program for port improvement, cargo solicitation and promotion has been launched. When the improvements are completed, Port Houston will have facilities for berthing 80 ships.

Seven deep water wharves are to be built at a cost of \$4,850,000, with a water depth of 35 feet, to bring to 24 the number of wharves owned by the Navigation District, which operates the public docks, grain elevator and other facilities. In addition, Manchester Terminal Corporation will provide two new berths to supplement their present one, at a cost to them of \$800,000. Still another wharf will be rehabilitated at a cost of \$400,000.

The other private terminals, Gulf Atlantic Warehouse Company and the Ship Channel Compress Company, also are making improvements along the channel.

To further protect the port and the ships which load and unload there, the improvement program includes among its projects the purchase of two additional fireboats at a cost of \$200,000.

Provision also is being made at Morgans Point to hold vessels in port during bad weather. The program at that spot also calls for widening and straightening of the Ship Channel, and provisions to expedite night operations. A total of \$350,000 is provided for this work.

If the Navigation District does not acquire the Todd-Houston shipbuilding facilities, for which it is negotiating with the War Assets Administration, it proposes to purchase additional property at Manchester for a \$700,000 bulk handling plant and other facilities. The Manchester property is near the railroad yards and would provide economical switching.

Other improvements include the consolidation of offices now in temporary quarters at the Turning Basin, the purchase of equipment to handle inbound grain, the purchase of a heavy lift, the purchase of right-of-way for grounds to dump the spoils from the channel, and the purchase of real estate on the south side of the channel to widen the docks.

A major improvement which is destined to increase speed and efficiency at Port Houston, as well as become a great asset to the city and its surrounding area, will be the building of two great vehicular tunnels under the Ship Channel. This \$13,000,000 project will remove all ferry cross-channel traffic from the channel.

The tunnels will be built jointly by the United States government, the State of Texas and the county. The project is due to be started in the very near future.

All the publicly-owned facilities of the Houston waterfront were brought under one ownership recently when the Navigation District purchased, for \$500,000, several wharves and docks from the City of Houston. Before this move, ownership

was divided between the city and the Navigation District.

The Navigation Commission, which operates the port, is comprised of five persons appointed to the city and county governments. The commissioners serve without pay as a public service.

A recent move on their part to promote the port was the establishment of a Kansas City office and the appointment of George K. Reeder as Southwestern representative. Mr. Reeder has been given the task of serving Midwest shippers and of working as liaison man between them and the Port of Houston.

The commission at present also is studying plans for creation of a foreign trade zone in the port. Such zones in other ports are being investigated by the commissioners and studied by the Houston Chamber of Commerce, the Foreign Trade Association and maritime leaders.

The planned construction and improvements along the Ship Channel and at Port Houston itself are expected to increase the amount of tonnage handled at the port. The 1946 record tonnage was 3,602,748 tons more than the previous peak year, 1939, when 28,174,710 tons was handled. Tonnage in 1945 was 23,869,878.

The first six months of 1947 showed a continuation of the upward trend in Port Houston's tonnage.

Of Houston's 1946 total of 31,837,453 tons of cargo, foreign imports were 205,257 tons and exports were 7,058,108 tons. In addition, there were heavy coastwise, interoceanic waterway and local tonnage records.

Petroleum and petroleum products made up the bulk of cargo handled by Port Houston last year, totaling approximately 25,000,000 tons. Other heavy tonnages listed were: wheat, 412,601 tons or 13,753,000 bushels; coal, 417,033; cotton, 257,969 tons or 1,023,000 bales; rice, 80,661; coffee, 51,018; wool, 30,611, and carbon black, 74,168.

That is the story of Port Houston today and the plans for her future, but the port has a long and colorful history. Long before the channel was dug and the great freighters moved up to the man-made deep-water port, steamboats were pulling their way up and down Buffalo Bayou, the stream which runs into and becomes the Ship Channel at the Turning Basin.

Soon after Texas won her independence and became a republic, the steamer Laura made one of the earliest known voyages up the bayou, destined for the infant city of Houston.

Houston was just being laid out then, and the Laura missed her stop completely. Finally, when she located the little town, the steamship backed up and landed.

In 1841 the Port of Houston was officially established by city ordinance, and on Jan. 29, 1842, the Congress of Texas gave Houston the right to remove obstructions from the bayou and improve navigation.

Blockade runners during the War Between the States slipped into the port

(Continued on page 66)

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Houston, Third U. S. Port

(Continued from page 64)

during high water or in times of an unusually high tide. They worked swiftly loading cotton, then raced out before the tide could drop and leave them stranded in the port.

The Houston Direct Navigation Company was incorporated during the middle of the last century with the city's leading men, the virtual founders of Houston, as incorporators. Then, six steamboats were in daily service, plying their way from Houston to nearby Galveston in seven hours.

It grew, however, this idea of a great port at Houston, and after the turn of the century, city, county, and finally federal officials began to interest themselves. Bonds were voted, appropriations made, dredging taken out of the hands of private interests and activities increased. Wharves and other improvements were built.

On January 10, 1910, the governing body of the port, the Harris County Navigation District, was created by the voters, and again it was the leading men of the city and county who took the re-

sponsibility for guiding the way.

Three years later the first harbor board, which included Jesse H. Jones in its membership, was appointed. This board, however, was absorbed later by the Navigation District board.

In the forefront of this fight to make a dream a reality was the Houston Chamber of Commerce with its membership of business and civic leaders. Their efforts to improve, to enlarge, to promote Port Houston did not end with the opening of the inland deep sea port in 1915.

Their efforts have continued through the years since then, and are continuing now, even though Port Houston again ranks third in the nation. Their efforts are evident in the new, carefully planned program which has been backed by the people of the area.

Visibility Unlimited

(Continued from page 49)

ment in commercial aviation annals.

A great deal of Delta Air Lines' success may be attributed directly to the personality and the perspicacity of President Woolman. He has a veritable genius

for business development. It was in the years 1924 and 1925 that Delta started out as a crop dusting service, fighting the ravages of agricultural infestations from the air. In 1929, on the verge of the depression, the company inaugurated passenger service between Dallas, Texas, and Jackson, Mississippi. Mr. Woolman, who had learned to fly in the cratellite "Jennies" of the First World War, served first as field manager of the early company. Later he became vice president.

Delta has come a long way since the depression. Today this line flies approximately 19,000,000 passenger revenue miles a month—more than all of the nation's airlines lumped together flew a scant 13 years ago. Nearly 2,500 persons today are on Delta's payroll which approaches a half-million dollars a month. That's a sharp contrast from that day six years ago when Delta moved its headquarters to Atlanta from Monroe, Louisiana, and could boast only 350 employees.

Delta's new additions include a large executive building, a new hangar with 29,450 square feet of space, and new shop space of 15,790 square feet.

Its flying equipment, too, is in marked contrast to that which flew its Dallas-Jackson-Birmingham-Atlanta route 17 years ago. Then it flew six-passenger, fabric-covered Travelairs with a cruising speed of 90 miles an hour. Today it has a fleet of 71,000-pound DC-Skymasters which accommodate 44 passengers each.

It's all well and good for one who knew Delta in 1929 to say, "You wouldn't recognize the old line now," but President Woolman and his co-workers reiterate that Delta is just beginning to forge ahead. Mr. Woolman doesn't use a crystal ball when he gazes into the future and comes forth with some interesting predictions.

South's Labor Force

(Continued from page 50)

will make phenomenal gains in industrial expansion by reason of the employment attractions held out. Such a projection would show a total labor pool in the South in 1950 of 20,721,000 persons, better than 34 per cent of the probable national pool of 60,778,000.

The Bureau of Labor Statistics, by a slightly different method of computation, estimates that the labor force of the 16 states in 1950 will be 20,563,000, and of the nation, 60,830,000.

These projections presuppose that the South will continue to absorb the major portion of its own natural labor force growth. Much will depend upon Southern industry itself for fulfillment of this assumption. The intense alertness of state, community and individual effort in this direction, gives good ground for belief that it can be done.

It is true that hundreds of thousands of Southerners hitherto employed on farms will find it necessary to seek opportunity in other fields, for mechanization of agriculture is just beginning to gather speed, and can be expected to

(Continued on page 76)

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1-4

Economic Lot Sizes In Manufacturing

(Continued from page 47)

at a rate of 20 per cent per year, instead of merely using the interest rate that would be paid on borrowed capital. (This point will be explained more fully in a later article.) The broken lines of Figure 1 show that when an interest rate of 6 per cent is used the minimum point becomes 7450 pieces instead of the correct economic lot size of 4940 pieces. This is only one of the reasons why most economic lot size formulas give lot sizes which are much too large. This is so generally true that it is not unusual for industrial managers to state that they arbitrarily halve the results given by the economic lot size formula which they use. This obviously decreases the respect for such formulas.

Summary

The information given in this article may be summarized as follows:

All industries that manufacture in advance of sale and ship articles from finished stock should make economic lot size studies of their various products. In no other way can these industries produce with reasonably low total unit charges and with a desirable rate of capital turnover.

Lot sizes should not be made as large as possible, in order to reduce unit preparation charges, but should be made as small as possible, in order to obtain a high rate of capital turnover and to reduce the risks incident to storage. If lot sizes are too small, however, the increase in the unit preparation charges will more than offset the advantages gained from lower unit charges incident to storage. All manufacturers are keenly aware of the reduction in unit preparation charges that occurs with large lots. Few manufacturers seem to understand how much large lots really cost them in unit charges incident to storage, including all of the business risks involved. There are other factors that must be considered and lot sizes should not be made so small as to be ridiculous from a production standpoint; but, as a general rule, lot sizes should not be greater than the economic lot size which has been determined from a study of all of the factors involved.

Total unit charges increase very little for considerable changes in lot size from the economic lot size. As the amount of capital tied up in finished inventory varies directly with the lot size, a manufacturer with limited working capital resources may often find it desirable to use lot sizes somewhat smaller than the economic lot size. By so doing he will reduce the amount of capital tied up in inventory without greatly increasing his total unit charges.

Capital tied up in finished inventory should be charged with the desired rate of return on such capital instead of merely the simple interest rate paid on borrowed money. This need not interfere with the regular accounting methods that are used, as economic lot size studies are entirely separate from accounting methods, although economic lot size stud-

ies do use information obtained from regular accounting records. The use of the desired rate of return on invested capital automatically takes care of the problems of capital turnover and the risks incident to storage such as possible obsolescence and deterioration of the goods in storage.

Formulas are useful in the routine determination of the economic lot size, but do not show the difference in total unit charges that would result from using some other lot size. This information is important and may easily be obtained by tabulating the unit charges for lots of different size.

For the economic lot size the unit preparation charges are equal to the unit charges incident to storage.

In these days when increasing demand and rising costs of material and labor find so many manufacturing companies with impaired working capital resources, it is desirable that lot sizes be reduced to the lowest point that will permit a reasonably low unit preparation cost.

Railroad Income Gains

Class I railroads in the Southern Regions in the first seven months of 1947 had an estimated net income, after interest and rentals, of \$35,000,000 compared with a deficit of \$1,000,000 in the same period of 1946. For the month of July alone they had an estimated net income, after interest and rentals, of \$1,800,000 compared with a net income of \$700,000 in July, 1946.

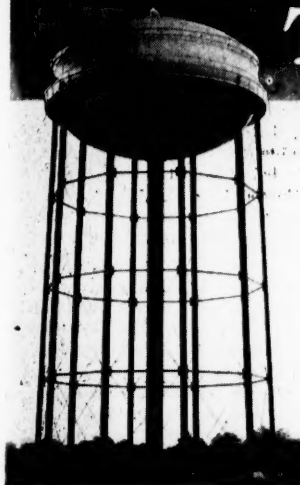
Those same roads in the first seven months of 1947 had a net railway operating income, before interest and rentals, of \$61,899,181 compared with \$36,157,421 in the same period of 1946. Their net railway operating income, before interest and rentals, in July amounted to \$4,977,245 compared with \$5,473,047 in July, 1946.

Operating revenues of the Class I railroads in the Southern Region in the first seven months of 1947 totaled \$688,910,408, an increase of 9.9 per cent compared with the same period of 1946, while operating expenses totaled \$542,807,764, an increase of 2.6 per cent above 1946.

Creosote Output Stepped Up

The five Southern plants of American Lumber and Treating Co., are reported to be stepping up production in an effort to meet demand for creosote products. The plants are at Florence, S. C., Gainesville, Fla., Fordyce and Crossett, Ark., and Shreveport, La. The company also operates four other factories in other parts of the country. According to J. F. Linthicum, president of the company, domestic creosote production is still below prewar requirements, and demand is stretching supplies to the limit. To meet the situation, new blending practices and extensive use of substitute preservatives are being resorted to. High level output by all the 240 wood preserving plants of the nation throughout the remainder of the year is expected by Mr. Linthicum.

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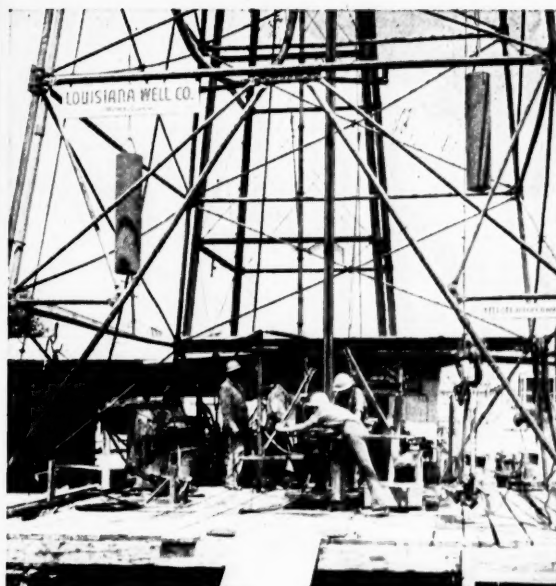
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Southern Textiles Reach Maturity

(Continued from page 45)

ern progress and diversification is the class freight rate structure recently made effective. These rates are subject to still further modification when current uniform classification studies are completed. Immediately, the rates give the South the advantages of a 10 per cent reduction while the competitor North is subjected to a 10 per cent increase in shipments of manufactured goods.

The South's leadership generally hailed these new rates as opening the door for a tremendous expansion over the long term, as southern business is placed on a more nearly equitable rate basis with the North. However, some southern leaders have asserted that the new rates represent only the beginning of a fight for removal of the North's remaining rate advantages over the South.

Carefully coordinated, South-wide efforts to obtain revisions favorable to the South in the much more important commodity rate structure will be started when the uniform classifications have been made effective. This new fight has been promised by numerous men and agencies who were among the leaders in the twenty-year class-rate struggle.

Already beneficial industrial effects are observable, as the South's class-rate victory was assured some months ago.

One phase of this benefit is revealed by Textron's sewing plant program, by Burlington Mills' new policy, by the advent of Leading Embroidery Co. of North Bergen, N. J., into the Carolina fine textiles weaving industry, and by other less impressive events which together are expected to exert great economic influence. They will benefit greatly by the lower class rates.

Leading Embroidery bought 46,000 Carolina spindles and 1,000 looms. Nearly \$500,000 is being invested in new equipment for Cowpens (S. C.) Manufacturing Co. Modernization is planned for Calvine Mill, at Charlotte, lately bought from Textron for an estimated \$2,000,000.

The numerous women's wear manufacturers around Atlanta report September operations at capacity. Joe Ginsburg, president, Atlanta Dress Manufacturers Association, and Gail G. Phillips of Charlotte, secretary, Southern Fashion Exhibitors Association, each said in substance that the new class rates should promote rapid expansion in the South's production of fashion merchandise.

Several nationally known companies manufacturing shirts also are concerned with this incipient trend, which promises a new era.

A partial survey accumulated the following significant details relative to apparel sewing in the South and South-west:

Seamprufe Inc. of New York, operating plants at Easton and Scranton, in Pennsylvania, announced plans to build a 40,000-square-foot plant at McAlester, Okla., to produce fine slips and lingerie.

Cluett Peabody & Co. lately began operating a new plant at Buchanan, Ga., which has a weekly capacity of 1,500 dozen white shirts.

Schwobilt Clothes Inc. also recently finished a \$30,000 building at Chipley, Ga., to house a men's trousers plant.

Recently effected was the purchase by Blue Bell Inc. of Greensboro, N. C., of five Mid-South Manufacturing Co. plants in Mississippi at Tupelo, Booneville, Fulton, Baldwin and Ripley. These plants have an annual capacity of 7,200,000 work shirts. Blue Bell is a nationally known producer of many lines of work clothing.

Construction of a 60,000-square-foot, \$500,000 plant at Dallas, Texas, for Lorch Manufacturing Co. and Westway Sportswear Inc. will be completed next Spring. These companies produce women's and children's quality apparel specialties.

Outstanding producers of threads also are expanding southern facilities. Lately Clark Thread Co. began constructing at Albany, Ga., a \$500,000 spool mill. Belding-Hemingway-Corticelli Co. is starting operations in a 100,000-square-foot thread throwing plant at Knoxville, Tenn.

These are typical and diverse programs—there are many others large and small. Expansion in the South extends into many other industries, but less spectacularly—and that is another story.

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Gaul & Letterly Sts., Philadelphia, Pa.
GALVANIZED PRODUCTS FURNISHED

New Florida Paper Plant

(Continued from Page 43)

Complete chemical recovery facilities are installed.

The power plant contains two oil-fired boilers and one similar unit equipped with a Hoff furnace for burning bark and sawdust in addition to oil. The 7,500-kilowatt turbine is of the double extraction, condensing type with steam automatically extracted at 150 and 50 p. s. i.

Fluorescent light is installed in those areas of the plant where conditions permit. Incandescent lighting is otherwise used. Lighting distribution is 400 volts primary stepped down to 110-220 volts.

Electrical distribution for the 11,500-horsepower installed motor capacity is in two voltage level classed—one is 4,160 volts and the other of 440 volts, both of 3-phase, 60-cycle.

The plant's main office building is about 110 by 40 feet and is fully air-conditioned. Buildings of the plant are of steel frame, with concrete foundation, floors and grade beams, eight-inch curtain walls, treated steel sash.

Total floor space in the plant is 260,000 square feet. The area of the buildings is 130,000 square feet.

Hudson Pulp and Paper Corp. maintains its general offices in New York and operates mills at Augusta, Maine; Bel-lows Falls, Vermont, and Landsdowne, Pa. The new Palatka mill in the corporation's southern division will supplement those operations.

General contractors for the project were Merritt-Chapman & Scott Corp. of New York, with M. C. McGough, vice president, in charge and L. V. Forbeck, project manager. J. E. Sirrine & Co., Greenville, S. C., were engineers with D. G. Moon, assisted by H. W. Meaking, responsible

from inception of the project to reparation of final plans. J. H. Bringham was Sirrine resident engineer, working with William Mazer and A. M. Lund of the Hudson staff.

Equipment and material firms included the following:

Log and Chip Con- veyors—	Stephens-Adamson Manufacturing Co.
Refuse Conveyors—	Link-Belt Co.
Drum Barker—)	
Digester Blow Down)	
System—)	
Turpentine Condens-)	Fibre-Making Proc-
es—)	esses, Inc.
Digester Circulating)	
System—)	
Chipper—	Carthage Machine Co.
Re-Chipper—	Waterville Iron Works
Chip Screen—	Carthage Machine Co.
Knife Grinder—	Samuel C. Rogers & Co.
Chip Silos—	Kalamazoo Tank & Silo Co.
Digesters—	Chicago Bridge & Iron Co.
Blow Valves—	Fibre-Making Proc- esses, Inc.
Blow and Storage)	Hammond Iron Works
Tanks—)	Condenser Service & Eng. Co., Inc.
	Taylor Iron Works
Black Liquor Wash-)	
ers; Thickener;)	
Foam Breakers;)	Improved Paper Ma-
Centrifugal Screens;)	chinery Corp.
Blow Tank Agitator;)	
Consistency Regula-)	
tor—)	
Elevators—	General Elevator Co.
Tailings Screen & Size)	Trimble Machine
Meter—)	Works
Pre-Knotters—	Bird Machine Co.
Agitators; Stock)	Noble & Wood Ma-
Chest—)	chine Co.
Jordans;)	Noble & Wood Ma-
Brooks Beater—)	chine Co.
Consistency Regula-)	Trimble Machine
tors—)	Works
Paper Machine—	Pusey and Jones Corp.

Paper Machine
Drive—
Hoods and Air
System—
Vacuum Pumps—
Condensate Return
System—
Fan Pumps—

Stock, Liquor, and
Water Pumps—

Felt Conditioning—
Scales—

Winder—
Roll Grinder—

Cranes—

Evaporators—

Recovery Boilers,
Refuse Boilers,
and Oil Burning
Boilers—

Bark Stoker & Bin—
Refractories—

Precipitators—
Salt Cake and Lime-
Handling Equip-
ment—

Insulation—
Causticizing System—

Lime Kiln—

Liquid Alum System—
Fans—

Stack—

Breechings—

Feed Water Pumps—

Feed Water Heater—
Mill Compressors—

Fire Pumps—
Water Intake
Screens—

Condenser—

Main Switchgear and
Transformers—

Elevated Water
Tank—

Structural Steel—

Reinforcing Steel—
Steam Turbine—)

Motor Controls—)

Motors—

Fence—

Drinking Water
Treatment—

Kamyr Wet Ma-
chine—

Boiler Water Treat-
ment—

Temperature Con-)
trols, Automatic)
Controls, and In-)
struments—)

Steel Windows—
Precast Concrete Roof
Decks—

Miscellaneous Tanks)
and Steel Boxes—)

Steel Gratings—

General Electric Co.
J. O. Ross Engineer-
ing Corp.

Nash Engineering Co.
Midwest - Fulton Ma-
chine Co.

Worthington Pump &
Machinery Corp.

Allis-Chalmers Manu-
facturing Co.

Ingersoll-Rand Co.
Worthington Pump &
Machinery Corp.

Morris Machine Works
The Labour Co., Inc.

Goulds Pumps, Inc.
Bird Machine Co.

Fairbanks, Morse &
Co.

Cameron Machine Co.
The Lobdell Co.

Whiting Corp.
Manning, Maxwell &
Moore, Inc.

Swenson Evaporator
Co.

Babcock & Wilcox Co.

The Hoff Co., Inc.
United Refractory
Construction Co.

Koppers, Inc.
The Brady Conveyors
Corp.

Jamar-Olmen Co.
The Dorr Co.

Traylor Engineering
& Manufacturing Co.

General Chemical Co.
B. F. Sturtevant & Co.

Alphons Custodis
Chimney Construc-
tion Co.

Hammond Iron Works
Babcock & Wilcox Co.

Warren Steam Pump
Co.

Cochrane Corp.
Ingersoll-Rand Co.

Worthington Pump &
Machinery Corp.

Goulds Pumps, Inc.
Link-Belt Co.

Westinghouse Elec-
tric Corp.

General Electric Co.

Chicago Bridge & Iron
Co.

Southern Steel Works
Co.

Ceco Steel Products
Corp.

General Electric Co.

Westinghouse Electric
Corp.

Reliance Electric Co.

Cyclone Fence Divi-
sion

American Steel & Wire
Co.

Wallace & Tiernan,
Inc.

The Permutit Co.

Sandy Hill Iron &
Brass Works

W. B. Coleman & Co.
Milton Roy Pumps

Mason-Nellan Regula-
tor Co.

The Bristol Co., Re-
public Flow Meters
Co.

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Precast Slab & Tile
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Hotel Paxton Omaha

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Hotel Clovis Clovis

OKLAHOMA
Hotel Aldridge Wewoka

SOUTH CAROLINA
Hotel Wade Hampton Columbia

TEXAS
Hotel Stephen F. Austin Austin
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Hotel Brownwood Brownwood
Hotel Cortez El Paso
Hotel Texas Fort Worth
Hotel Buccaneer Galveston
Hotel Galvez Galveston
Hotel Jean Lafitte Galveston
Coronado Courts Galveston
Jack Tar Court Hotel Galveston

Miramar Court Galveston
Hotel Cavalier Galveston
Hotel Plaza Laredo
Hotel Lubbock Lubbock
Hotel Falls Marlin
Hotel Cactus San Angelo
Hotel Menger San Antonio
Angeles Courts San Antonio

VIRGINIA
Hotel Mountain Lake Mountain Lake

Executive
Offices
Galveston
Texas



HOTELS

South a Major Lumber Producer

(Continued from page 42)

the larger timberland owners and most of the wood using industries are taking active measures to reduce the ravages of fire and insects which take almost as great an annual toll as timber cut itself; and to install seeding and cultivating procedures that will replace cut timber with stands of new growth.

Better than half of the timberlands are held by farmers, generally in small holdings. This type of owner appears to be the real key to perpetuation of this important Southern crop. Realizing this, conservation organizations are doing all they can to show the farmer-timberman how his real farm income can be materially raised by giving timber culture off-season attention. By off-season is meant the interval between harvesting old crops and planting new ones. This period, ordinarily, constitutes a gap in farm operations during which productive work is not feasible. It is being pointed out, however, that this idle time devoted to silviculture in time can produce important cash income, aside from assuring constant supplies of farm fuel, posts and rough timbers.

Experimental Forest System

A plan for developing a South-wide system of experimental forests has resulted from recommendations of the Research Committee of Forest Farmers Association. Organized in 1942, this organization of landowners from all Southern states asserts that misconceptions on forest farming still abound. According to its assertions, forest farming is not a process of planting trees in rows, then sitting idly

by for 25 years or more until the crop matures. It is often the taking over of neglected second growth woodland—some open, some poorly stocked, some well stocked to good young timber—and working that woodland for a livelihood, year in and year out while the capital investment represented by the timber gains interest through growth to produce the maximum possible annual income.

Partial programs are under way at five research centers: Crossett, Ark., Olustee, Fla., Stoneville, Miss., Round Oak, Ga., and Bent Creek, N. C. The Crossett center, probably best known, is operated on an annual budget of \$14,000. It is typical of some 13 million acres of second growth pine and hardwood forests in the south-western part of the South. Here, after only a few years of study and experimentation, technical foresters have the key to forest restoration. They are demonstrating to timber owners the methods by which their depleted timber stands can be rehabilitated in a surprisingly short period, and proving to them that trees can be made to grow faster in the South than in any other section of the world.

In the most recently reported year, this experiment center showed a financial return of \$16 per acre.

The other centers also are making progress, placing emphasis on the methods best adapted to the various regions. The one at Olustee concentrates chiefly on production of naval store timber.

Endeavors such as these are renewing hope that Southern timber growth can be made to match timber drain, and that this great crop will continue to be a prime factor in the South's industrial growth.

Southern Construction Awards Total \$1,332,353,000 in Nine Months

(Continued from page 41)

gram. The figure was larger than in any postwar month and the second largest in F. H. A. history. The record was established in July 1941, the number of units then being 26,100.

The Producers Council, a national organization of manufacturers of building materials and equipment, also will analyze the future course of the building industry. Its meeting is now being held to discuss the building outlook, new developments in home building, with leading figures in various phases of the industry participating.

A Labor department official paid tribute to the construction industry last month when he said "the construction industry has made extraordinary progress during the past twelve months in establishing apprentice training program to supply the craftsmen need for housing and other building projects."

Housing Expediter restrictions continue on recreational buildings. The Construction Limitation Regulation, as of August 29, prohibits the beginning of construction, repairs, additions or alterations, or improvement or conversion from

one purpose to another of any public or private structure used for recreational or amusement purposes unless authorization was granted under Veterans Housing Program Order 1, or unless a permit is issued or an exemption specified by the Expediter's office.

To Open Texas Agencies

The New York Life Insurance Co. has applied for and received a license to do a life insurance business in the State of Texas, effective January 2, 1948, it was stated by George L. Harrison, president of the company.

An announcement with respect to the Company's plans for agency development in Texas will be made at a later date, it was said.

Research, Chemical Society Anniversaries Scheduled

The Chattanooga section of the American Chemical Society will observe its tenth anniversary and the second anniversary of the inauguration of the Industrial Research Institute of the University of Chattanooga, by sponsoring a two-day meeting on October 10 and 11.

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BALTIMORE 2

New and Expanding Plants

(Continued from page 16)

building, \$123,694.

ROSENBERG—Houston Light & Power Co., service building.

RUSK—McCrossin & Co., plant completion.

SAN ANTONIO—Sinclair Oil & Refining Co., gasoline line terminal, \$1,000,000.

SAN ANTONIO—Richter's Bakery, addition to present bakery, \$51,487.

SAN ANTONIO—Dr. Conn Millburn, service station, \$25,306.

SAN ANTONIO—Texas Pipe Line Co., pipeline terminal, \$2,000,000.

SAN ANTONIO—Valcar Enterprise, Inc., roof trusses and roofing, for solvent extraction plant.

SAN ANTONIO—Valcar Enterprises, Inc., solvent extraction plant.

SAN ANTONIO—Harper Brothers Dairy, 427 Fredericksburg Road, plans building.

SAN ANTONIO—Valcar Enterprise, Inc., bottle-washing room, pasteurizing room, cold storage room, office and retail sales room, etc.

SAN ANTONIO—Humble Oil and Refining Co., storage plant.

SAN AUGUSTINE—Deep East Texas Electric Cooperative, 75 miles of line.

SAN AUGUSTINE—Deep East Texas Cooperative, clearing rural electric lines, \$15,768.

SULPHUR SPRINGS—E. L. Ashcroft, re-modeling auto building.

TAHOKEA—Lyntegar Electric Cooperative, office building.

TEXAS CITY—Texas City Terminal Railway Co., barge canal.

UVALDE—Coca Cola Bottling Co., garage, \$14,824.

VICTORIA—Crescent Valley Creamery, creamery building.

WACO—Southwestern Bell Telephone Co., building, \$300,000.

WINNIE—McCarthy Oil & Gas Corp., chemical plant, \$1,500,000.

WINNIE—McCarthy Chemical Co., Plant No. 1, \$3,000,000.

YORKTOWN—Migura Brothers, garage building.

VIRGINIA

CULPEPER—City, power plant addition.

FAIRFAX COUNTY—Virginia Electric & Power Co., 17 miles of lines.

NEWPORT NEWS—Hudgins Motor Co., addition to service building.

NEWPORT NEWS—Asheville Mica Co., factory building 1 and administration building 2, \$171,400.

NORFOLK—Swift and Co., slaughterhouse and packing plant, \$664,000.

RICHMOND—Joseph C. Fusco, Inc., building and auto service center, \$62,150.

RICHMOND—Chandler Shade Co., alterations and addition.

RICHMOND—Crawford Manufacturing Co., warehouse addition to stripping plant, \$41,397.

ROANOKE—Appalachian Electric Power Co., reinforced concrete building with garage.

ROANOKE—Yale & Towne Manufacturing Co., plant.

ROANOKE—Norfolk and Western Railway Co., rebuilding passenger station, \$1,000,000.

SALEM—Yale & Towne Manufacturing Co., plant.

WEST VIRGINIA

BECKLEY—Chesapeake & Potomac Telephone Co., telephone building.

Textile Mills, of Chicago, Ill., has transferred part of its operation to a plant in Georgia, nearer to the source of raw material supply. In addition to its chief commodity, a burnproof ironing board cover, the company produces a considerable number of other textile and plastic utilities for household use, including ironing board pads, pressing cloths, mattress protectors, washing machine covers, hot pad holders, and electric ironer covers.

Statement of the ownership, management, circulation, etc., required by the Acts of Congress of August 24, 1912, and March 3, 1933, of MANUFACTURERS RECORD, published monthly at Baltimore, Md., for October 1, 1947.

State of Maryland,
City of Baltimore,

Before me, a Notary Public, in and for the State and City aforesaid, personally appeared C. J. O'Donnell, who having been duly sworn according to law, deposes and says that he is the Assistant Treasurer of the MANUFACTURERS RECORD, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication, for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in Section 537, Postal Laws and Regulations, to wit:

1. That the names and addresses of the publisher, editor, managing editor and business managers are: Publisher, Manufacturers Record Publishing Co., Baltimore, Md.; editor, Wm. M. Beury, MANUFACTURERS RECORD, Baltimore, Md.; managing editor, Samuel A. Lauver, MANUFACTURERS RECORD, Baltimore, Md.; business manager, Frank Gould, MANUFACTURERS RECORD, Baltimore, Md.

2. That the owner is Manufacturers Record Publishing Company, Baltimore 3, Md.; stockholders are: Frank Gould, MANUFACTURERS RECORD, Baltimore, Md.; K. Marchant, Maplewood, N. J.; Wm. M. Beury, MANUFACTURERS RECORD, Baltimore, Md.; R. Lisle Gould, MANUFACTURERS RECORD, Baltimore, Md.; Frank G. Beury, Baltimore, Md.; Fleet-McGinley, Inc., Baltimore, Md.

3. That the known bondholders, mortgagees and other security holders owning or holding 1% or more of total amount of bonds, mortgages or other securities are: None.

4. That the two paragraphs next above, giving the names of the owners, stockholders and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association or corporation has any interest, direct or indirect, in the said stock, bonds or other securities than as so stated by him.

C. J. O'DONNELL,
Assistant Treasurer.

Sworn to and subscribed before me this 22nd day of September, 1947.

EMMA C. STERNER,
(My commission expires May, 1949.)

South's Labor Force

(Continued from page 66)

proceed at greatly accelerated rates as raw materials regain normal abundance and more new machinery becomes available. It is also true that Southern industry will be called upon to absorb this exceptional increase of employables as well as the million new hands that arrive through natural growth.

Industry throughout the nation has become keenly aware of the vital advantage that rests in an adequate labor supply—a labor supply that is adequate not only in numbers but also in attitude toward the jobs to be performed. The high value

of Southern workers both quantitatively and qualitatively is making itself better known each year. This factor is credited with having brought many of the splendid new plants to the South that have arrived since the end of the war, and current reports in the Southern Business Outlook and New and Expanding Plants pages in this issue of the Record as well as those recently published give convincing evidence that the movement is still in its infancy.

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